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An Intensive Archeological Survey of the South Carolina State Ports Authority's Belleview Plantation, Charleston, South Carolina

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An Intensive Archeological Survey of the South Carolina State Ports Authority's Belleview Plantation, Charleston, South Carolina

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*An Intensive Archeological Survey of the South Carolina
State Ports Authority's Belleview Plantation,
Charleston, South Carolina*

by

*James D. Scurry and Mark J. Brooks
Research Manuscript Series No. 158*

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Prepared by the
INSTITUTE OF ARCHEOLOGY AND ANTHROPOLOGY
UNIVERSITY OF SOUTH CAROLINA
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LIST OF ABBREVIATIONS

<i>CCROPJW</i>	<i>Charleston County, Records of the Ordinary/Probate Judge, Wills</i>
<i>CCROPJIAS</i>	<i>Charleston County, Records of the Ordinary/Probate Judge, Inventories, Appraisments, Sales</i>
<i>SCRSSW</i>	<i>South Carolina, Records of the Secretary of State, Wills</i>
<i>CCRMC</i>	<i>Charleston County, Records of the Register of Mesne Conveyance</i>
<i>MCASC/CCP/CD</i>	<i>Manuscript Census, Agriculture, South Carolina, Christ Church Parish, Charleston District</i>
<i>PSPG</i>	<i>Papers of the Society for the Propagation of the Gospel</i>
<i>RCG/AACAOR</i>	<i>Records of the Comptroller General, Accounts Audited of Claims Arising Out of the Revolution.</i>
<i>SCRSSLGCS</i>	<i>South Carolina, Records of the Secretary of State Land Grants, Colonial Series</i>

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MANAGEMENT SUMMARY

The archeological survey of the proposed Wando River Terminal was conducted in compliance with the National Environmental Policy Act of 1969 and Executive Order 11593 at the request of the South Carolina State Ports Authority from February 13 to March 10, 1979 by Mark J. Brooks and James D. Scurry of the Institute of Archeology and Anthropology, University of South Carolina. The purpose of the survey was to locate and evaluate the archeological resources within the proposed project area and to make recommendations pertaining to the preservation or conservation of those resources.

The four phase survey methodology was determined to a large extent by the environmental conditions existing in the project area during the time of the survey. Phase I consisted of an intensive examination of a large tract of the property which had been timbered and cleared prior to the survey. Phases II and III consisted of the excavation of two hundred fifty-one 50x50 cm test units along a series of transects throughout the remaining portions of the project area. The emphasis of the Phase III transects was on those areas which overlooked adjacent marsh. Phase IV consisted of a re-examination of the Phase I tract in response to the prehistoric site-settlement data recovered in the transects.

Thirty-eight prehistoric sites were recorded during the survey, representing Early to Late Woodland (1000 B.C.-A.D. 1000) and probable Mississippian (A.D. 1000-1700) period utilization of the area. Thirty-two of these sites are represented by low density ceramic and/or lithic scatters. The amount of valuable scientific information to be gained through further archeological investigation at these sites is minimal; therefore, no further work is recommended. One additional site, 38CH370, was intensively tested during the survey and, based on the data recovered, no further archeological study is warranted.

The remaining five prehistoric sites (38CH367, 38CH399, 38CH400, 38CH401, and 38CH402), due to the undisturbed nature of the archeological deposits, could potentially contribute valuable scientific information and are therefore felt to be significant to the prehistory of the South Carolina Coastal Plain. Three of the sites (38CH399, 38CH400, and 38CH401) were located during the transect phase of the survey and are represented by apparently undisturbed single component ceramic concentrations. Additional archeological study at these sites could yield valuable information about site variability and function within the Wando area and could provide better understanding of the temporal affiliation of the sites. Avoidance of these sites is recommended. If avoidance during current construction or in future development is impossible, then a testing program should be implemented.

Sites 38CH367 and 38CH402 are apparently undisturbed single component shell middens. The nature of the chemical environment in which the

artifacts were deposited is favorable for the preservation of bone, wood, floral, and other perishable materials. This is in direct contrast to the majority of non-shell land sites where the acidic soils quickly decompose perishable materials. These unusually well-preserved archeological materials could yield valuable information pertaining to site function and variability within the project area, resource procurement, and sensitive environmental factors affecting subsistence-settlement patterns reflected in the archeological record. These sites should be avoided if possible. However, if impact from current construction or from future development is inevitable, then a mitigation program of complete excavation for these sites is recommended.

Three historic period sites were located during the Wando survey. Site 38CH445 is a modern concrete block structure representing recent (1940s) occupation of the area. Available maps from 1919 indicate that an earlier structure may be present; but, no artifacts were recovered from the area. No additional archeological work is recommended for this site.

The remaining two sites represent Colonial period shipbuilding and nineteenth century plantation activities. Documentary evidence suggests that the material from Site 38CH444 is associated with the remains of a shipyard owned by David Linn during the 1760s and 1770s. Site 38CH434 is associated with Belleview Plantation, a nineteenth century plantation complex with evidence of an earlier Colonial shipbuilding and/or plantation settlement also present. Given the importance of the rivers and river transportation in the economic development of South Carolina and the absence of any systematic investigation into shipping related activities, both of these sites are significant to the history of the state. According to the proposed construction schedule, Site 38CH444 is presently out of danger of impact from the terminal facilities construction (U.S. Army Corps of Engineers 1977). If future construction or development should become necessary for this area, then a program of intensive sampling and possible subsequent excavation should be implemented in order to mitigate the adverse impact.

Site 38CH434, is located in the primary impact zone and will be totally destroyed by construction of the facilities. Due to the heavy disturbance resulting from previous timbering and clearing activities, a program of testing would be neither reliable nor cost effective. There is a high probability of intact subsurface features, such as wells, privies, and cellars which would extend below the depth of the disturbance. Documentary and archeological evidence indicates that at least one Historic period burial is present in the area. In order to mitigate the adverse impact to this site, an archeologist should be on hand to monitor the reduction of the bluff edge. The disturbed overburden should be carefully removed with appropriate earthmoving equipment and each grader cut should be shovel skimmed in order to expose any potential subsurface features. The features should then be mapped and excavated.

INTRODUCTION

The South Carolina State Ports Authority has proposed the construction of a terminal and docking facility at Belleview Plantation, on the Wando River near Charleston, South Carolina. The purpose of the proposed construction is to increase storage and loading/unloading capabilities in order to offset the increasing demand on existing facilities (U.S. Army Corps of Engineers 1977). The Institute of Archeology and Anthropology, University of South Carolina conducted an intensive archeological survey of the areas to be impacted by construction to locate and evaluate the cultural resources within the project area and to make recommendations pertaining to the preservation or conservation of those resources in light of future development.

The physiographic and environmental setting of the project area and its proximity to Charleston suggested a high probability of prehistoric and historic sites to be located in the project area. The only previous systematic archeological survey in the Wando River area, that of the Mark Clark Expressway, resulted in the location of 69 sites from both Prehistoric and Historic period contexts. Therefore, a sampling design was devised that would allow for maximum intensive coverage of the 561 acre tract within the allotted time frame. This report represents the results of the survey and analysis. It is intended to provide basic comparative archeological and environmental site data for both prehistoric and historic period sites located within the Wando River area. Much more study, especially on colonial shipbuilding, is needed for the Wando/Hobcaw area, but is beyond the scope of this report.

PHYSIOGRAPHIC SETTING

The Wando River project area is located at the terminus of Long Point Road, west of U.S. Highway 17 near Charleston, South Carolina. It encompasses 561 acres of land bordering on the Wando River to the north and west, Hobcaw Creek to the south, and adjacent private property to the east (Fig. 1). Geologically, the site lies in the Atlantic Lower Coastal Plain which is composed of unconsolidated sand and clay sediments ranging in age from Cretaceous to Recent (Thornburg 1965: 31; Colquhoun 1969: 4).

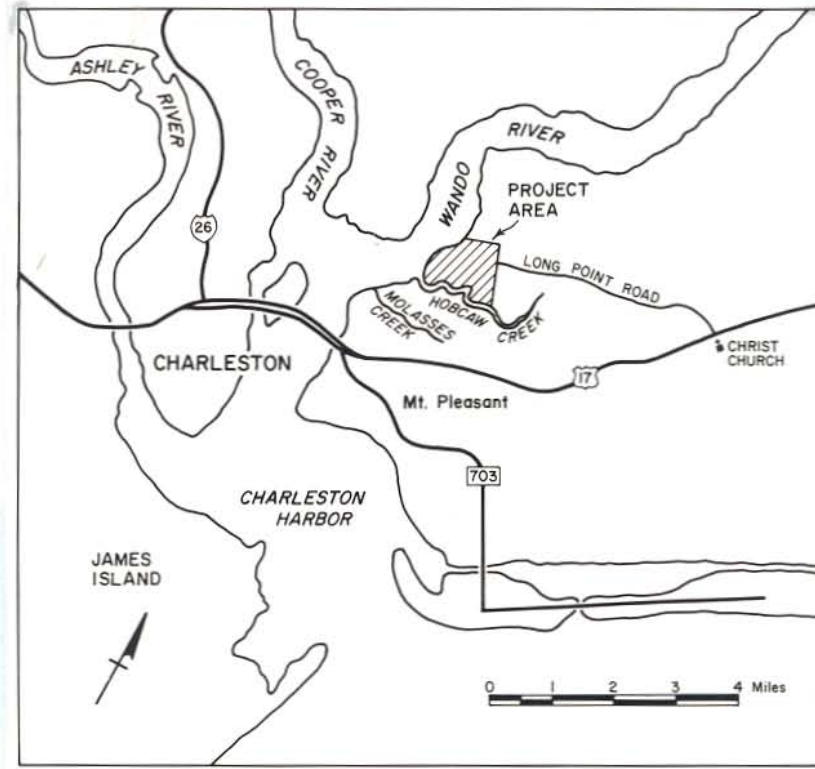


FIGURE 1: Locator map showing the Charleston area and the physiographic location of the project area.

The Lower Coastal Plain sediments in the Charleston vicinity consists of the Santee Limestone formation overlain by approximately 226 feet of the Cooper Marl formation. The marl sediments were deposited in a marine environment at a depth of over 100 feet and were subjected to periods of erosion. The results of these erosional periods were the formation of numerous depressions and valleys. Pleistocene sands and gravels were subsequently deposited in these depressions during the recent glacial periods (U.S. Army Corps of Engineers 1977: 35). The Cooper Marl is overlain by the Pamlico Terrace formation which consists

of fine sands and blue to gray clay at a depth of approximately 60 feet (U.S. Army Corps of Engineers 1977: 35).

The primary soil type in the Wando project area is Wando loamy fine sand from the Wando-Seabrook association with a small percentage of soils from the Kiawah-Seabrook-Dawhoo association. The Wando soils are excessively drained to well drained, occurring on relatively flat ridges of 0-6% slope. These soils have a slow surface runoff but very rapid permeability and the water table is generally over five feet below the surface. They are generally poorly suited for agriculture due to their low inherent fertility and droughtiness (Miller 1971: 3,31).

The Wando, Ashley, and Cooper Rivers converge at Charleston to form the Charleston harbor. These rivers originate in freshwater swamps of the Coastal Plain and provide drainage for an area of approximately 1,190 square miles. The Wando is the smallest of the three with a watershed of approximately 120 square miles. The lower reaches of the river are bordered primarily by salt marsh. The extent of the marshes decreases with distance upstream, with woodlands bound at the headwaters (U.S. Army Corps of Engineers 1977: 26-27).

The Lower Coastal Plain of South Carolina is included in the magnolia forest zone of the Southern Temperate Deciduous Forest Biome (Shelford 1963: 63). Vegetation characteristic of the magnolia forest includes the Southern magnolia, American holly, redbay, laurel oak, American beech, live oak, swamp chesnut oak, Carolina basswood, winged elm, sugarberry, pignut hickory, and white oak. Understory vegetation includes Eastern hophornbeam, redbud, hawthorns, yaupon, and a variety of shrubs and vines (Shelford 1963: 67-68). Among the dominant faunal species associated with the magnolia forest are deer, gray squirrel, black bear, wolves, bobcat, turkey, and a variety of small reptiles and insects (Shelford 1963: 68-69).

The climate in the Charleston vicinity is generally mild, with an average annual maximum temperature of 76°F and an average low of 54°F. During the summer the average high temperature is in the upper 80s with summer lows in the mid 60s, while winter temperatures range from highs in the lower 60s to lows in the 40s. Average annual rainfall is 50 inches, with most of the precipitation occurring during the summer months. The average growing season, as indicated by the mean freeze-free interval, lasts approximately 294 days near the central coast and 266 days near the airport (Kronberg 1971: 72).

ARCHEOLOGICAL AND HISTORICAL BACKGROUND

Introduction

Archeological evidence indicates that the Coastal Plain of South Carolina has been occupied on a continuous basis for at least 12,000 years. Generally, prehistoric cultural development proceeded from hunting and gathering societies based on the exploitation of now extinct Pleistocene megafauna and later on deer and small game, to more complex agricultural societies subsisting on maize and other New World domesticates (Griffin 1967).

Various culture-historical reconstructions of southeastern prehistory have been developed from work in neighboring states of Georgia and North Carolina (Coe 1964; Wauchope 1966; South 1976). These reconstructions are based on the presence of distinctive biface types, and later, of distinctive ceramics styles whose changes are associated with inferred cultural changes in response to shifts in the subsistence base or strategies.

Paleo-Indian

The Paleo-Indian period dates from the first occupation of South Carolina until the end of the Pleistocene at around 8000 B.C. The economy of these early inhabitants involved a hunting and gathering subsistence based on the exploitation of now extinct Pleistocene megafauna. Fluted point, indicative of Paleo-Indian occupation, are found primarily in the riverine zone of the Coastal Plain and Fall Line and very rarely occur in the Piedmont (Michie 1976).

Archaic

The Archaic period dates from 8000 to 1000 B.C. and is characterized by a hunting and gathering exploitation of regional environments. The beginning of the Archaic is marked by the end of the Pleistocene and the extinction of its associated megafauna and ends with the appearance of Thom's Creek ceramics at around 1000 B.C. The Archaic has been divided into three periods based on observed regularities in the technologies characteristic of each.

Early Archaic

The Early Archaic (8000-5500 B.C.) is characterized by the presence of Dalton, Palmer, and Kirk biface types (Coe 1964) and represents an extension of earlier Paleo-Indian period.

Middle Archaic

The Middle Archaic period dates from 5500-3000 B.C. and is characterized by Stanly, Morrow Mountain, and Guilford biface types (Coe 1964). The primary subsistence strategy of the Early and Middle Archaic periods was oriented towards exploitation of white-tailed deer and other small game.

Late Archaic

The Late Archaic period (3000-1000 B.C.) is characterized by stemmed bifaces (Coe 1964) and by the introduction of Stallings Island ceramics. Associated with these technological changes are inferred shifts in the subsistence strategy to include more intensive and extensive use of shellfish resources along the coast and along some major freshwater drainages (Claflin 1931; Williams 1968; Stoltman 1972, 1974). Sites of the Late Archaic often exhibit evidence of more intensive use including the presence of large shell middens. The presence of these large midden sites and the evidence of more intensive use of sites from this period along with the manufacture of ceramics have been suggested to be indicative of a shift to a more sedentary lifestyle.

Woodland

The Woodland period (1000 B.C.-A.D. 1000) is generally represented by the widespread manufacture of ceramics, the construction of mounds, and a shift in subsistence from purely hunting and gathering to include horticulture. The Woodland period has also been divided into Early, Middle, and Late subperiods which are based on the presence of Thom's Creek, Deptford, and Cape Fear and/or Wilmington ceramics. Small triangular Yadkin and Badin projectile points are also characteristic of this time period (Coe 1964).

Site data from Berkeley County suggests that Woodland sites, especially Middle to Late, are more highly represented in the interriverine zone of the Coastal Plain of South Carolina. In addition to being numerous, these sites are generally larger than earlier Archaic sites (Green and Brooks n.d.).

Mississippian

The term "South Appalachian Mississippian" has been used to refer to the Mississippian period (A.D. 1000-1700) in South Carolina and portions of adjacent states (Griffin 1967). The Mississippian period

is characterized by a more complex social organization and subsistence based on intensive maize agriculture. Villages were on the average larger and more permanent than before and tended to be located along major drainages (Griffin 1967). One of the more striking features of the Mississippian period is the large platform mound complexes which were constructed during this time. The mounds served as bases for temples and often had village sites situated around them (Coe 1973; South 1973; Ferguson 1973, 1974). Ceramics of this period exhibit complicated stamped surface treatment (Caldwell and McCann 1941; Griffin 1967) while the projectile points are small and triangular (Coe 1964). Ferguson (1971, 1973, and 1974) has conducted extensive research on the "South Appalachian Mississippian" in North and South Carolina and summarizes our current knowledge of this cultural time period.

While this chronological framework of prehistory is generally applicable to South Carolina, a better understanding of the cultural systematics of the more localized South Carolina Coastal Plain has begun to develop as a result of various environmental impact surveys and on-going problem oriented research projects conducted in the region (Hartley and Stephenson 1975; Widmer 1976a, 1976b; Brooks and Scurry 1978; Anderson, Lee, and Parler 1978; Trinkley and Tippet 1980; Green and Brooks n.d.). Most of these projects, however, have focused on the Interior Coastal Plain around the Cooper River area. The South Carolina Department of Highways and Public Transportation conducted an archeological survey of the proposed Mark Clark Expressway corridor which is located to the north of the Wando project area (Trinkley and Tippet 1980). This survey constitutes the only previous systematic archeological investigation in the Wando River area. Trinkley found that Cape Fear (Late Woodland), Thom's Creek (Early Woodland), and Irene (Mississippian) ceramics represented the highest numerical frequency of artifacts followed by Wilmington (Late Woodland) and Deptford (Middle Woodland) materials.

Ethnohistoric

The early European settlers in the Wando area found two Indian groups--the Wando and Sewee--living in the area. Virtually nothing is known of the Wando Indians except that two early maps by Edward Crisp (1700-1711) and le Sieur Sanson d'Abbeville (approximately 1680) show the Wando living on the south side of the Wando River in what later became Christ Church Parish (Gregorie 1925: 6).

The map by Crisp also shows a "Sewee Indian Fort" to be located northeast of the project area near what is now Boone Hall Plantation (Gregorie 1925: 6). Two additional maps of 1682 and 1695 indicate a Sewee settlement to be located near the headwaters of the Wando River and the 1695 map also shows a village on Bull's Bay. Later travelers through the area in the early 1700s, however, found the Sewee Indians living entirely on the Santee River (South 1972: 30). Smallpox and alcohol had severely reduced their numbers. In addition, many of the men had been lost at sea during an attempt to sail to England in order to trade directly with the British market. Most drowned in a storm

while the survivors were rescued by British ships and sold into slavery (Gregorie 1925: 11-12).

In 1717 the Sewees were drawn into the Yamassee War where their remaining population was obliterated. Some may have survived, being absorbed into other groups, but the war meant the end of the Sewees as an autonomous group (Gregorie 1925: 12-13).

Historic Period

One of the first attempts at settlement of South Carolina occurred with the founding of Charles Towne at Albermarle Point in 1670. With assistance from the friendly native Indian groups, the colonists survived the initial hardships and succeeded in establishing Charles Towne as a permanent settlement. In 1672, the town was moved to Oyster point, its present location, in order to develop its port capabilities. Eventually with the introduction of the slave based economy and rice as a major commercial crop, Charleston became the major port in the southern colonies (Clowse 1971).

The importance of Charleston in the economic and social development of the state has long been recognized and has served as the subject of much literature (Sellars 1934; Oliphant 1964; Rogers 1969; Clowse 1971). Therefore, the purpose of this background is not to discuss the role of Charleston but to establish the historical nature of the Wando project area with special emphasis on how it relates to the archeological record. This will be attempted following two major documentary avenues: first, a search of the land records and plants in order to establish the temporal and spatial extent of the settlement, and secondly, by examination of the available records to assess the economic orientation of the settlement.

Christ Church Parish and Bermuda Town: Early Organization and Settlement in the Wando River Area

The Wando project area is located at the confluence of the Wando River and Hobcaw Creek in an area that became Christ Church Parish by the Church Act of 1706. This Act organized ten parishes which served as religious and political centers for settlements outside of the immediate limits of Charleston. The parish churches were used as public meeting places, centers for local government, and for advertisement of local and governmental notices. In addition, the parish officials kept birth, marriage, and other vital statistics and served as tax collectors and other government officials (Gregorie 1961: 2-7).

One of these early settlements in the east Wando River area was a small community called Bermuda Town. The earliest reference to this town is in a deed dated October 3, 1699 which refers to the "Road that leads from Sewee to Bermuda Town" (Smith 1913: 136). Although the exact nature or extent of the Bermuda Town settlement is unknown, the register book of Christ Church Parish from 1716 indicates that at least a school-

house was present in the town (Smith 1919: 136-137). Gregorie (1961: 19) suggests that the presence of a schoolhouse indicates that Bermuda Town "must have been something of a community." Whatever the nature of the settlement, Bermuda Town apparently did not last long because at a January 1741 meeting of the vestry of Christ Church Parish, a decision was made to ask the Assembly for permission to sell the schoolhouse lands at Bermuda Town (Gregorie 1961: 39).

Just as the nature of the Bermuda Town settlement is unknown, the exact location of this community is equally uncertain. Several of the early deeds refer to Bermuda Town as located on Hobcaw Neck. This area consisted of a body of land surrounded by Wackendaw (now Hobcaw) and Shem Creeks to the north and east and by the Wando and Cooper Rivers to the west and south (Smith 1919: 137-138). Smith, however, feels that the boundaries described in the deeds indicate that Bermuda Town was located on the northern or eastern side of Wackendaw Creek (now Hobcaw) in the vicinity of the Wando project area. Whatever the nature and location of the settlement, the name Bermuda has continued as the name of a creek and plantation from which the northern portion of the project area was derived. It seems mostly likely that this area which retained the Bermuda name also contains the remains of Bermuda Town.

Historic Period Settlement in the Wando Project Area

The lack of available historic records made a complete and accurate reconstruction of past ownership of the Wando project area virtually impossible. Available documents indicate that the property now known as Bellevue Plantation was originally a minimum of four separate tracts of land. The largest parcel, known as Leiby's Point, contained 300 acres and remained relatively intact until 1825 when it was combined with various other tracts in the project area. It is this tract which can be most completely reconstructed.

Colonial Period

The earliest documented occupant in the project area was Edward Croft, a Charleston merchant, who, with his brother Childermas, was active in the Indian trade. While Croft's ownership can not be directly documented, it can be inferred from several conveyances of properties located to the south which refer to adjacent property "formerly of Edward Croft" (SCRSSW/Z-8: 171-173; R-4: 443-447). In addition, a burial vault fragment was recovered during the survey which had an epitaph inscribed to Edward Croft. This is probably a section of the vault indicated on a later 1843 property plat of the area (Fig. 2).

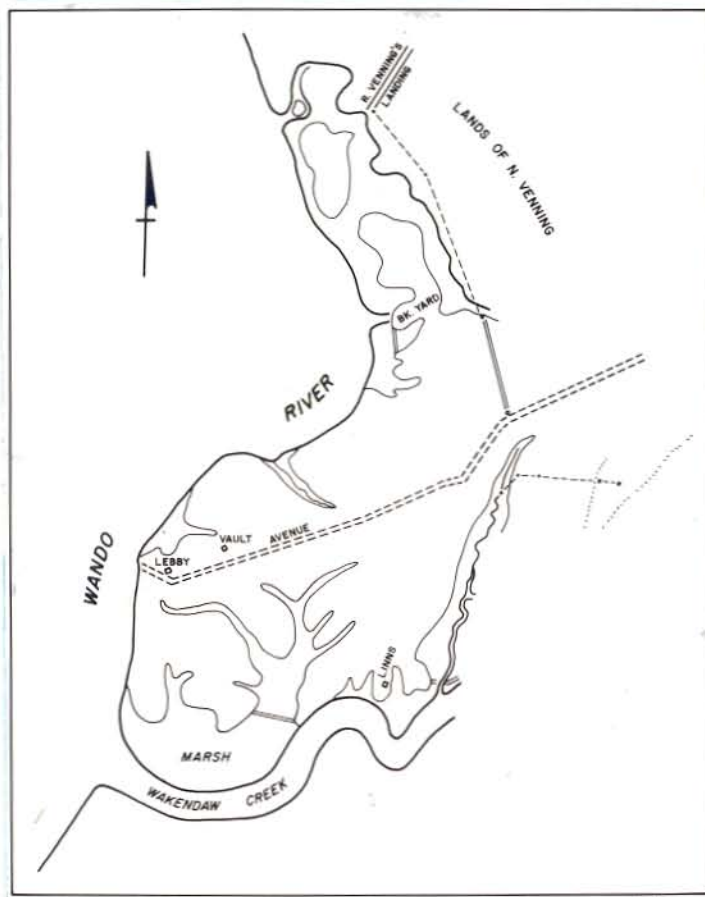


FIGURE 2: 1843 property plat of the project area showing location of Lebby's Point and Linn's Shipyard.

Although the exact date of Croft's acquisition of the property is unknown, available historical documents indicate that by 1738, Croft maintained a plantation and 38 slaves in Christ Church Parish (Edgar and Bailey 1977: 175). One of the interesting features of Croft's ownership is that the major emphasis of his plantation economy was toward cultivation of oranges. While experiments with oranges and other citrus fruits were not uncommon in the Colonial period, the orange groves at Croft's were in excess of 4000 trees (Jones 1958: 194n).

Among Edward Croft's other property was a lot in Georgetown, four lots in Beaufort, a 55 ton ship, and a 500 acre plantation on the Winyah River. Edward died in 1756 and willed one-third of his orange grove to his wife and his land at Wando to his son Edward Peter Croft, one of 16 children (SCCRSSW/1752-1756/7: 501-503). At some point thereafter, the property was conveyed to John Mortimer Williams. The exact nature and extent of Williams' ownership is unknown and can only be indirectly inferred from other documents. Several conveyances of land to the south of this tract refer to adjacent property "formerly of Edward Croft but now of John Mortimer Williams" (CCRRMC/Z-8: 171-173; R-4: 443-447).

Nathaniel Lebby, a shipwright from Beaufort, was the the next documented owner of the Wando tract. Lebby was born in Portsmouth, New Hampshire on April 1, 1740. He moved to Charleston, probably from Beaufort, in 1763 and sometimes afterward acquired the Wando property (Ellis 1967: 17). Although the exact date is not known, it seems to have been after 1775. This is indicated indirectly by a conveyance dated February 15, 1775, from the estate of David Linn to Alexander McNillage (CCRMC/R-4: 183-189) in which the Linn property is described as bounding to the "West on property formerly of Edward Croft but now of John Mortimer Williams." Therefore, it appears that Lebby acquired the property after 1775.

It must be cautioned, however, that indirect documentation can be misleading in that place names and descriptions of property boundaries often remain unchanged after the property has been transferred. An excellent example of this is the Wando plat of 1843 (Fig. 2) which shows Lebby and Linn in the project area when in fact both tracts of land have been under new owners for at least 18 years.

Nathaniel Lebby worked as a shipwright at one of the local shipyards. It is not known whether he owned one of these yards or whether he was employed by another shipwright. Lebby owned additional property in Beaufort, however, which possibly included a shipyard. In addition, Lebby owned land in Craven County and with two other men, owned a ship which was involved with the coastal and West Indian trade (Ellis 1967: 22, 25-27).

While in Charleston, Lebby was active in political affairs. He and other shipwrights and Charleston craftsmen were instrumental in leading the opposition to the Stamp and Declaratory Acts (Ellis 1967: 26-29). Lebby was among a group of Charlestonians imprisoned and banished to Philadelphia for not swearing allegiance to England (Webber 1933: 80). Lebby died in 1802 and through his will requested that "three lots each containing three acres be laid out to the south of and adjoining the old dwelling house and in front of my plantation house at Hobcaw" (CCROPJW/1-800-1807/28A). The three lots were for Lebby's daughters while the remainder of his plantation was given to his three sons, Robert, Nathaniel and William.

Lebby's heirs maintained the plantation until around 1825 when Mrs. Francis Lebby, widow of William Lebby, petitioned the Court of Equity at Charleston for her share of the inheritance. The court ruled favorably and the property was sold to William Smith, who eventually combined the Wando tracts into one unit (CCRMC/L-11: 433-435).

The remainder of the project area, which consists of a minimum of three additional tracts of land, can only be partially reconstructed for the Colonial period. Of noteable interest is the presence of a shipyard owned by David Linn during the 1760s. The shipyard was located in the southern portion of the project area overlooking Hobcaw Creek and is indicated on a Post-Revolutionary plat from 1786 and a property plat from 1843 (Figs. 2 and 3). On February 7, 1764 Linn received a grant for 28 acres of marshland adjacent to his property on which the shipyard

was located (SCRSSLGCS/8: 488). This property and the shipyard tract is probably included in the 372 acres of land, most of which was outside of the project area, owned by David Linn and sold by his executors to Alexander McNillage in 1775 (CCRRMC/R-4: 183-189). Little else is known of the shipyard or adjacent tract until its ownership by William Smith during the nineteenth century.

Various other owners of land within the Wando project area include Andrew Quelch, Samuel Peas, and Clement Lempriere all of whom were shipwrights at local shipyards. The ownership of property by Quelch and Peas is not documented for the Wando project area and must be inferred from other documents. Very little is known of Andrew Quelch except that he owned the Linn tract sometime prior to David Linn. This is indicated by a reference in a conveyance of property described as "bounding westward partly on land formerly belonging to Andrew Quelch but not to the estate of David Linn" (CCRRMC/Z-8: 171-173). Additional documentation indicates that Quelch also owned a plantation and shipyard on the south side of Hobcaw Creek that was later owned by Paul Pritchard (McIver 1960: 8-9).

Peas' tract was a small 48 acre parcel of property located in the southeastern corner of the project area and named for one-time owner Samuel Peas. Very little is known about this property except that it was owned by Harold Cranston, of Charleston, in the nineteenth century and was sold to William Smith in 1841 (CCRRMC/Y-10: 377-378).

According to available conveyance data, Clement Lempriere owned two adjoining 50 acre tracts in the Wando project area (CCRRMC/Z-8: 171-173). The exact nature of Lempriere's ownership of this property is unknown; however, it is improbable that Clement Lempriere lived here since he owned and maintained a plantation, ferry and possibly a shipyard at Hobcaw Point near what is now Molasses Creek. This is indicated by a post-Revolutionary plat of 1786 (Fig. 3) and by excerpts from the Loyalists transcript (RCG/AACAOR/ 53: 41-47) of Lieutenant Charles Prince, son-in-law of Lempriere, in which he claimed "A dwelling house on the Plantation called Lempriere's Ferry with a Barn, Stables, Out-buildings, and Negro Houses...."

As a result of his experience as commander of colonial privateers, Lempriere was commissioned to command the sloop Commerce against the British. Lempriere's mission was to capture the British ship Betsy and to commandeer the powder aboard. In August of 1775 Lempriere succeeded and in the following April was given command of the ship Prosper. Lempriere was lost at sea on December 28, 1778 (Edgar and Bailey 1977: 401).

Sometimes between 1797 and 1809, the heirs of Clement Lempriere defaulted on a mortgage of the Wando property. The land was then seized and sold at public auction to Patrick Duncan (CCRRMC/Z-8: 171-173). Following a brief nine year ownership, Duncan sold the two tracts to William Smith on March 9, 1818 (CCRRMC/Z-8).

Nineteenth Century

With the purchase of Peas' Tract by William Smith in 1841, the Wando property was consolidated into its basic configuration which has continued to the present. Soon after the purchase of the property, however, Smith died and left it to his wife and sons (CCROPJW/1839-1845/43B: 490-497). Smith's family sold the plantation in 1843 to Robert Venning who also owned a 600 acre plantation on Hobcaw Creek near the Wando property (CCRRC/N-11: 98-99). This conveyance began 40 years of short span ownerships in which the property was seldom owned by one individual for over 10 years. The reasons for this are unknown but may be associated with the inherent infertility of the Wando soils and their inability to support intensive agriculture (Miller 1971: 3, 31).

In 1853 Robert Venning sold the plantation to William Venning (CCRRC/E-13: 168-169) who in 1859 sold the property to William John Grayson (CCRRC/T-13: 298-299). During Grayson's ownership the name Bellevue was given to the plantation, as it first appears in the deed which conveys the property to Frederick Claussen, a Charleston baker, in 1862 (CCRRC/R-14: 263). Claussen's ownership was brief: in 1863 he sold the plantation to Mortimer Venning (CCRRC/R-14: 264-265).

During Venning's ownership, the 265 acre Bermuda plantation was added to the property. In 1875, Emily R. Gregorie purchased the 788 acre plantation from Venning (CCRRC/V-16: 201) and after 10 years she appointed Edmund Gregorie as trustee to act on behalf of eight other people. Edmund was to manage the property with the proceeds to be divided among the eight beneficiaries. In the event that one of the eight should marry or die, their share would be divided among the others (CCRRC/A-30: 289-292). During the late nineteenth century, the full spatial extent of the plantation settlement was realized. This is indicated by a 1919 U.S. Geological Survey topographic map (Fig. 4) and is supported by the archeological materials recovered during the survey.

In 1939, Wilhemina J. Hale was the only living beneficiary of the trust from 1885. Ms. Hale appointed her husband Ralph Hale as trustee of the property since Edmund died. Ralph Hale filed a suit for the right to sell the Bellevue-Bermuda plantation, and in March 1940, a favorable judgement was returned. The property was subsequently sold to Mr. and Mrs. John C. Sheridan, Jr. (CCRRC/Z-41: 20-22). Several structures, including the original plantation house, a maid's quarters, and two tenant/slave cabins, were still standing when the property was acquired by the Sheridans. Each of the structures was in desperate need of repair and was renovated during their ownership. In addition, three modern domestic structures, located along the bluff edge, were built during this time (John Sheridan, Personal Communication).

In 1957, the Gulf Oil Corporation purchased the property from the Sheridans (CCRRC/D-64: 306) and leased or maintained the plantation as a hunting/recreational retreat. The property was later purchased by the Georgia-Pacific Corporation and transferred to its sister company, the Georgia-Pacific Investment Corporation. In 1973 the present 561 acre Wando survey tract, consisting of all of the Bellevue and approximately

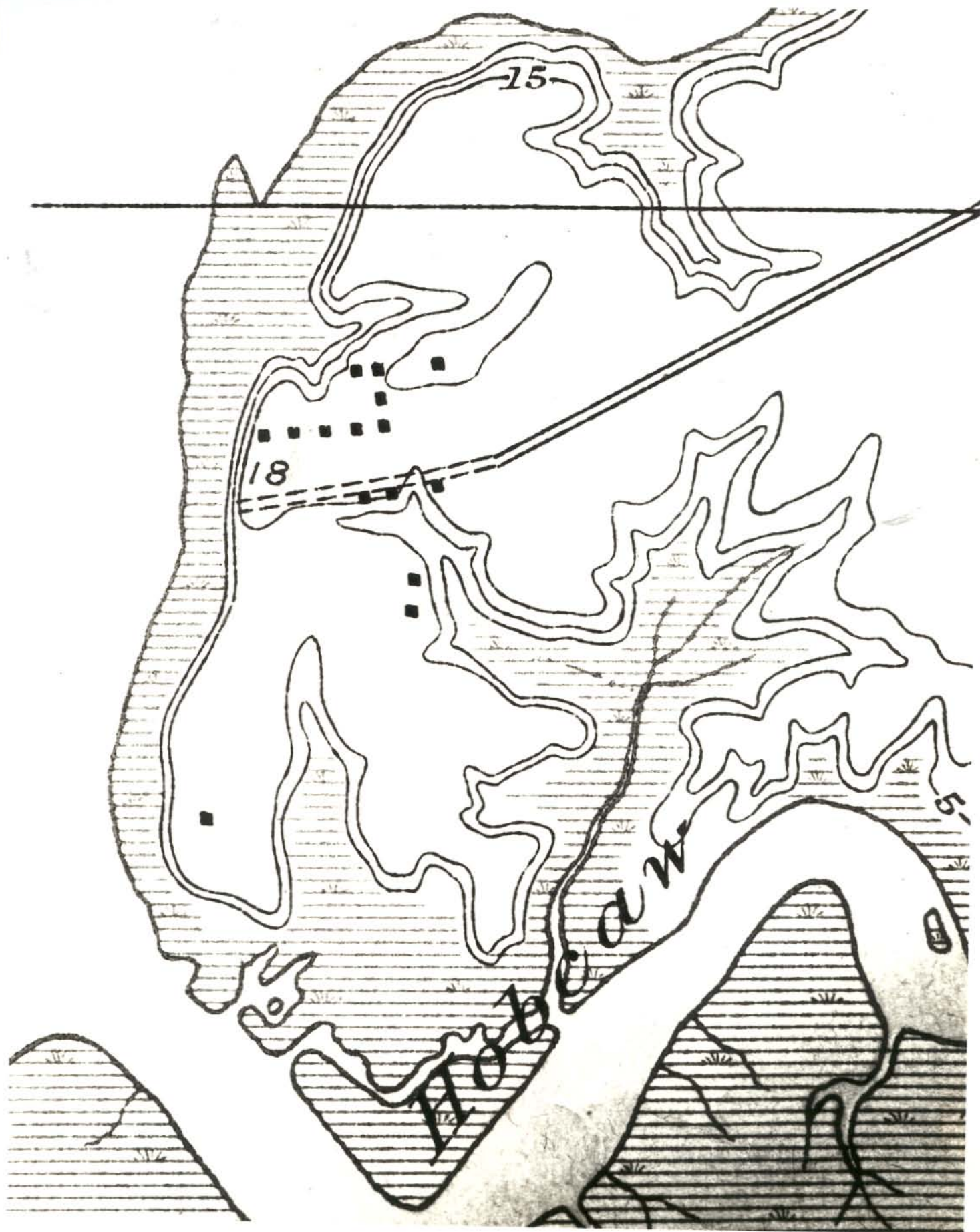


FIGURE 4: 1919 U.S. Geological Survey topographic map showing late 19th early 20th century expansion of Belleview plantation.

100 acres of the Bermuda plantations, was purchased by the South Carolina State Ports Authority. Construction of new terminal facilities has been scheduled by them.

Economic Background of the Wando River Project Area

The economic background of the Wando River project area can be generally described as a combination of an agricultural and industrial based economy with shifting periods of emphasis. Available historical documents indicate that the economic orientation of the first two-thirds of the eighteenth century was toward plantation agriculture. This is indicated by the inventory and will of Edward Croft who owned the plantation in the mid 1700s until his death in 1756.

Croft's inventory lists as among his personal property, 38 slaves, 49 head of cattle, 3 horses, and 15 sheep (CCROPJIAS/R-2: 531-532). The relatively high number of slaves in proportion to the small number of livestock suggests that the major economic emphasis was not animal husbandry since such an endeavor would require a less intensive labor force. Croft's will (SCRSSW/1752-1756/7: 501-503) suggests that the major orientation of his plantation economy was the cultivation of oranges. While the production of oranges was not uncommon during the Colonial period, most were grown for home consumption (Gray 1932: 826). Records indicate, however, that the orange groves at Croft's plantation were more substantial, somewhere in excess of 4,000 trees (Jones 1958: 194n).

Sometime after 1760 shipbuilding began to replace agriculture as the primary economic focus in the Wando area. This is suggested by the sudden influx of shipwrights into the area and is supported by the conveyance and plat data presented in the previous section. The reasons for this shift are unknown but may be a response to the general decline in agriculture in Christ Church Parish during the mid 1700s. This decline is suggested by a letter from the rector at Christ Church to the Secretary of the Society for the propagation of the Gospel (PSPG/B-17: 174) which states that "Christ Church is diminished by the Deaths of Some of the Old Standards and by the going away of others out of the Prish, as the Land in the Parish is about worn out, it being one of the first settled Parishes of the Country Parishes in this Province." Soil data published for Charleston County indicates that Wando soils, which compose approximately 85% of the soils found in the project area, are excessively well drained and inherently infertile (Miller 1971: 3, 31). It may be, therefore, that the land in the survey area was never capable of supporting large-scale cultivation of the agricultural products which were prevalent in Charleston at the time. This may be vaguely inferred from the attempt by Edward Croft to produce large quantities of oranges on his plantation at Wando. Recent studies from Florida indicate that orange groves are most productive when situated on similar deep, well-drained soils (Ziegler and Wolfe 1975: 94-103).

The rise of shipbuilding in the Wando River area is generally consistent with the development of shipbuilding in other areas of the state because five shipyards were built in South Carolina between 1740 and 1773 (Sellars 1934: 62-63). Studies of Colonial period shipbuilding have traditionally given little attention to the industry in the South, concluding that shipbuilding was of little significance with respect to the northern colonies (Hutchens 1941; Bailyn and Bailyn 1959; Shepherd and Walton 1972; Goldenberg 1976). Most of these studies, however, are based on data from the ship registers which were required by law for registration of vessels entering colonial ports. Vessels used for trade within the colony were not required to comply with the registration laws (Olsberg 1973). Given the agricultural nature of the South Carolina economy, it is most probable that shipbuilding in the state was oriented more toward construction of small riverine vessels for transportation of export items to the coast. This is suggested by a report in 1751 from James Glen, Governor of South Carolina, to the board of trade in Britain which stated that:

"Notwithstanding we have few Ships of our own, Cooper River appears sometimes a kind of Floating Market, and we have Numbers of Canoes Boats and Pettyaguas that Ply incessantly, Bringing down the Country Produce to Town, and returning with such Necessarys as are wanted by the Playters" (Olsberg 1973).

The riverine orientation of the shipbuilding activities in colonial South Carolina is further supported by the inventory of underwater archeological shipwreck sites in the state which indicate that the majority of the wrecks were small, low draft cargo vessels (Wilbanks, personal communication). An excellent example of this type of vessel is the Brown's Ferry which was recovered from the Black River near Georgetown in 1976 (Steffy 1978; Wilbanks 1978; Albright and Steffy 1979). In addition, Goldenberg (1976: 120-122) concludes that much of South Carolina's shipbuilders concentrated on repair of visiting ships.

Although shipbuilding and/or repair was the major emphasis during this time, agricultural endeavors were not excluded. The inventories of Nathaniel Lebbby (CCROPJIAS/D: 94), Andrew Quelch (CCROPJIAS/A: 7-8), and Clement Lempriere (CCROPJIAS/A: 244-245) include small quantities of corn and cotton and small numbers of cattle and horses. This suggests that the agriculture and animal husbandry which was conducted during the mid-to-late eighteenth century in the project area was probably related to subsistence production.

During the nineteenth century, Belleview plantation appears to have been utilized as a residence with some limited commercial and subsistence agriculture. This is indicated by the agricultural census data during various ownerships of the plantation in the nineteenth century. The agricultural data for Robert Venning in 1850 shows that he produced some substantial amounts of rice, corn, and sweet potatoes with less amounts of beans, Irish potatoes, and some cattle (MCASC/ CCP/CD/1850). The census for William John Grayson in 1860 shows similar patterns of production but in lesser quantities (MCASC/CCP/ CD/1860). This data may be misleading

since both of these men owned additional property at least equaling the Wando property. It is impossible to determine the quantity of agricultural production from Belleview Plantation during this time.

The agricultural census data for 1870 shows an almost total absence of agricultural activity in the project area. This is indicated by the census of Mortimer Venning which lists no agricultural produce and only two milk cows (MCASC/CCP/CD/1870). The lack of production exemplified by the data from the project area is not uncommon as many of the once productive agricultural plantations in the Charleston area were essentially abandoned, except as residences and subsistence agriculture, after the Civil War (Lewis and Hardesty 1978: 13-20).

The use of Belleview Plantation for small-scale commercial and subsistence agriculture continued through the late nineteenth century and into the late 1950s when the property was purchased by the Gulf Oil Corporation. The plantation was maintained as a hunting retreat until 1973 when it was purchased by the South Carolina State Ports Authority, which scheduled industrial development.

SURVEY METHODOLOGY

Preliminary to actual field survey, a check was made of the Statewide Inventory of Archeological Sites in South Carolina at the Institute of Archeology and Anthropology in order to determine if any sites had been previously recorded in the proposed project area. In addition, Mill's Atlas of South Carolina and several early maps of the area were checked for possible existence of early historic structures in the area. Although no prehistoric or historic sites were on file at the Institute, Lieutenant John Johnson's Map of Charleston and its Defenses shows the area to have been occupied during the Civil War, while Thornton and Morden's Map of Carolina shows the area to have been occupied at the early date of 1695. Interestingly, Mills' Atlas of South Carolina shows the area to be void of human occupation in 1825.

The survey strategy was determined to a large extent by the environmental conditions existing within the project area during the time of the survey. Phase I consisted of an on-foot intensive examination of a large tract of the property which had been timbered and cleared prior to the survey (Fig. 5). The remains of Belleview Plantation, 38CH434, were located within this area; therefore, the primary focus of this phase was the recovery of materials from the 20 associated collection units.



FIGURE 5: Photograph showing the clear cut tract of the project area.

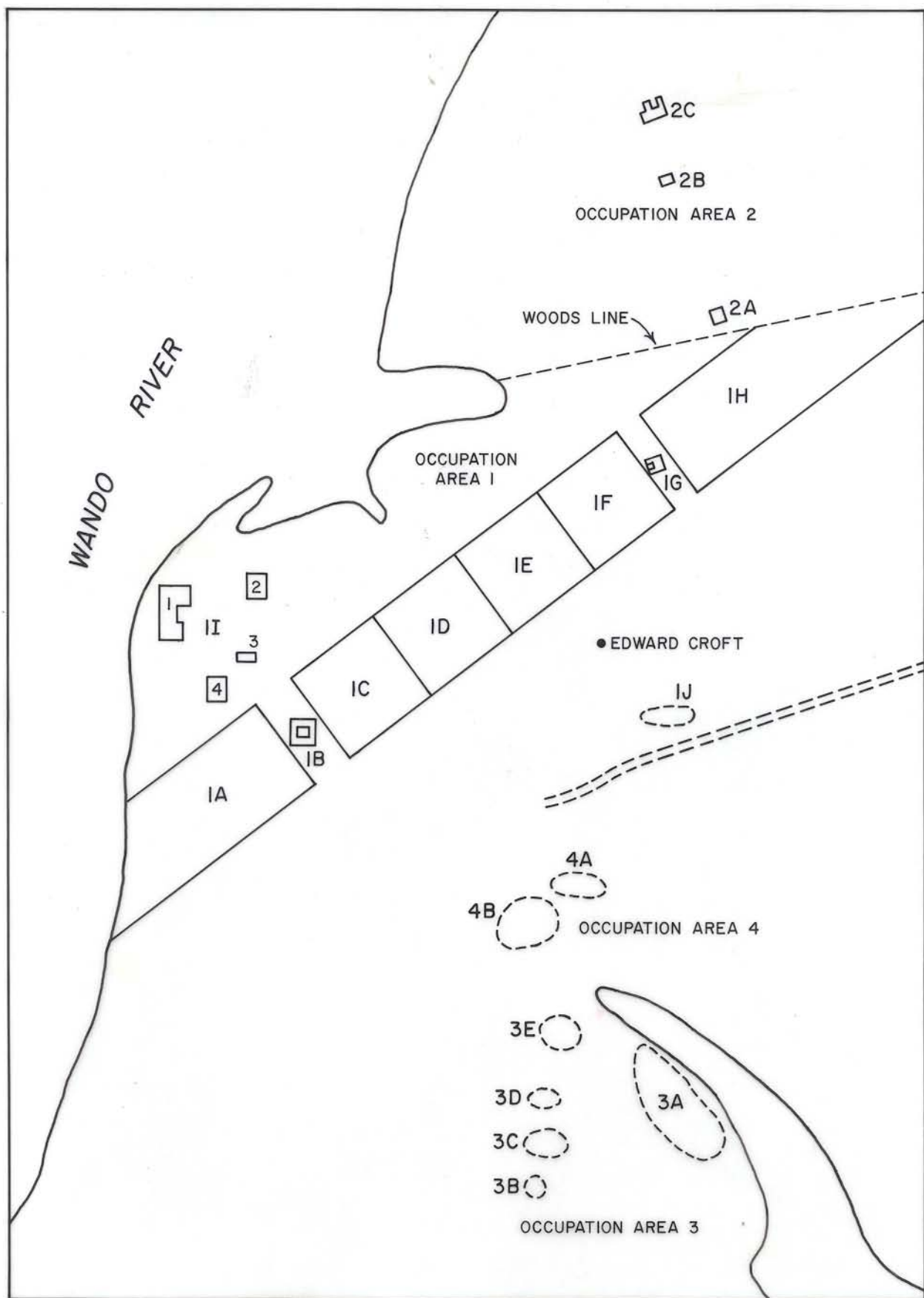


FIGURE 6: Map showing occupation areas and collection units associated with Belleview plantation.

From the on-foot examination of the clear-cut tract, four spatially distinctive occupation areas could be distinguished. Three of these areas (2, 3, and 4) were divided into nine collection units according to internal artifact clusters. The other area (1) was composed of a moderate, but continuous scatter of artifacts over an area of 400x80 m. Based on the association of artifacts with specific structural remains, the occurrence of artifact clusters, and the implementation of a collection transect along the scatter, this occupation area was divided into eleven collection units (Fig. 6).

Phases II and III consisted of the excavation of 25150x50 cm test units along a series of transects throughout the remaining portions of the project area. This strategy was designed to provide maximum coverage of the survey area in the available time. Long Point road which cross cuts the Wando property, was used as a boundary to separate the tract into northern and southern units. The Phase II transects had a north-south orientation and were placed at intervals of 200 m with a 50x50 cm test unit every 100 m along each transect. The northern unit transects began 100 m from the intersection of the eastern property line and Long Point road while the southern unit transects began at the property line and Long Point road intersection. This staggered transect placement allowed for the property to be covered by abbreviated transects at intervals of 100 m. Figure 7 shows the location of the survey transects and test excavations.

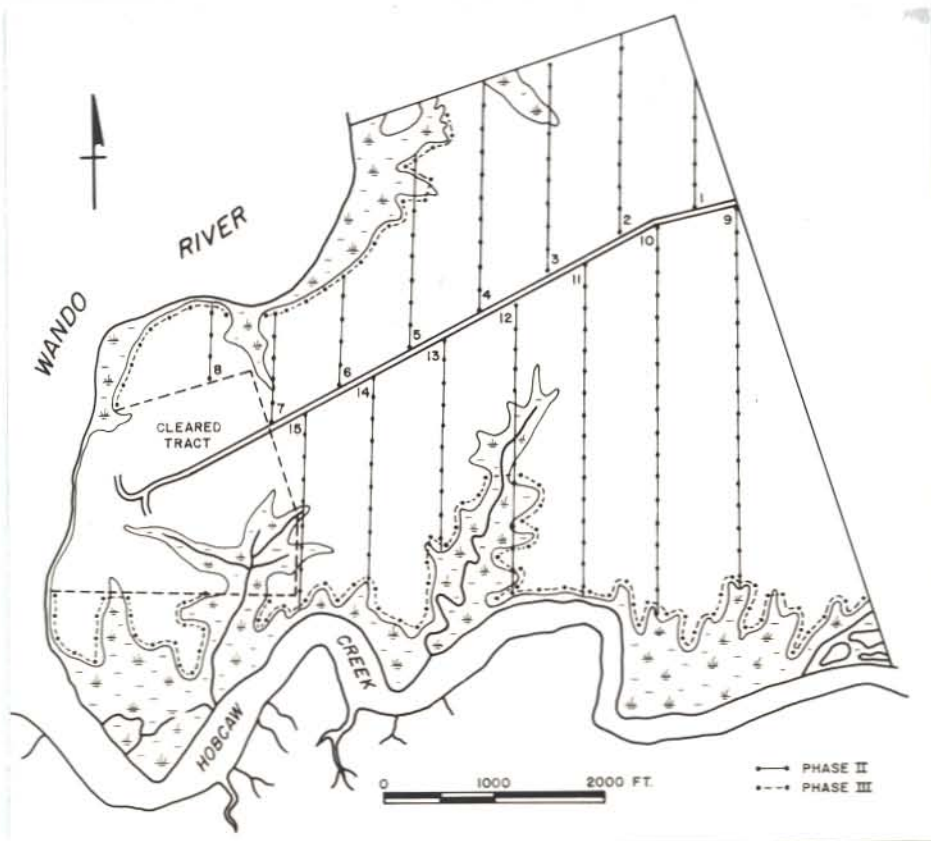


FIGURE 7: Map showing placement of Phase II and III transects and test excavations in the project area.

Once identified, sites were plotted on U.S. Geological Survey Topographic maps and specific environmental and archeological site information was recorded. In addition, an attempt was made to determine the spatial extent of the sites recovered during the transect phases of the survey. As material was recovered from the test excavations, additional 50x50 cm units were excavated 5-10 m to the north, south, east, and west of the original unit. If additional material was recovered, then additional test units were excavated 5 m from that unit.

The placement of the Phase III transect was determined by the results of the Phase II test excavations. The majority of the prehistoric sites recovered during the Phase II transects was located in areas overlooking small tidal inlets or directly overlooking the marsh. Therefore, a transect was placed along the outer edge of the project area with emphasis on similar environmental situations. A 50x50 cm test unit was excavated at intervals of 100 m along the transect.

Phase IV consisted of a reexamination of the Phase I tract, with emphasis on prehistoric materials, as a test for the prehistoric site-settlement data recovered through the transects. The entire area was re-walked because it offered 100% visibility of inland and bluff areas. Additional prehistoric sites were recorded and were indicative of the Phase II and III transect and Mark Clark Expressway data (Trinkley 1978) in which the sites clustered around small tidal inlets and marsh areas. Since the cleared tract offered 100% visibility, site extent was determined by surface material present.

Site documentation and artifacts, as well as project photographs, were processed by laboratory personnel and are presently on file at the Institute of Archeology and Anthropology, University of South Carolina.

ARCHEOLOGICAL SITE DATA

Introduction

A total of 41 archeological sites were recorded during the Wando River survey. Thirty-three of the sites were prehistoric ceramic and/or lithic scatters while five were prehistoric shell middens. The remaining three sites were from the Historic period and range in age from Colonial to recent (twentieth century). This section provides a description of each site including the spatial extent and physiographic placement within the project area. At the end of each description is included a listing of the material recovered from the site. Identification and temporal placement of the ceramic artifacts follow South (1974, 1976) and Noel Hume (1970) unless otherwise indicated. Table 1 presents additional artifact and environmental data for each site. Figure 8 shows the location of the prehistoric sites in the project area and Figure 9 shows the location of the Historic period sites.

38CH365

Site 38CH365 was recorded during the sampling phase of the survey. One undecorated prehistoric ceramic fragment was recovered from Test Unit E of Transect 2 through the northern section of the project area. The Test Unit was expanded to a 1 m square and additional material was recovered. In order to determine site extent and density, four additional $\frac{1}{2}$ m test units were excavated 10 m to the north, south, east and west of the original test unit. No additional material was recovered from the test excavations.

The terrain in the site area was relatively flat and the vegetation consisted of an upperstory of pine with a few hardwoods and an understory of moderately dense vines and shrubs. The soil is from the Wando series and consists of an organic zone (0-15 cm) of light gray sand over a light yellow-tan fine sand with little or no clay (15-60 cm). The cultural material was recovered from the top of the "B" horizon between 15-30 cm below the ground surface.

Cultural material:

- 1-undecorated sand tempered prehistoric ceramic fragment
- 1-Deptford check stamped sand tempered ceramic fragment

38CH366

Site 38CH366 was recorded during the sampling phase of the survey. Two prehistoric ceramic fragments and several associated oyster shell fragments were recovered from Test Unit C of Transect 3 through the

TABLE 1
PREHISTORIC SITE AND
ARTIFACT DATA

TABLE 1 PREHISTORIC SITE AND ARTIFACT DATA	38CH365	38CH366	38CH367	38CH368	38CH369	38CH370	38CH371	38CH372	38CH373	38CH374	38CH375	38CH376	38CH377	38CH378	38CH379	38CH380	38CH381	38CH382	38CH383	38CH384	38CH385
Site size (est. sq. meters)	25	50	96	unk.	64	1500	10	unk.	16	50	25	9	8	20	805	20	unk.	40	unk.	unk.	4
Number of artifacts	2	4	2	4	4	30	3	1	2	5	2	2	5	7	6	2	1	2	1	1	3
Number of artifact types	2	4	2	2	1	9	3	1	2	3	1	2	3	3	3	2	1	2	1	1	2
Artifact density (surface)	-	-	-	unk.	.062	-	.3	unk.	.125	.1	.08	.22	.625	.35	.007	.1	unk.	.05	unk.	unk.	.75
Artifact density (subsurface)	1	2	1	-	-	1.6	-	-	-	-	-	0	.8	-	-	-	-	-	unk.	-	-
Artifact diversity	.076	.153	.076	.076	.038	.346	.115	.038	.076	.115	.038	.076	.115	.115	.115	.076	.038	.076	.038	.038	.076
Depth of material (cm below surface)	15-30	18-22	15-50	-	-	0-35	-	-	-	-	-	-	0-15	-	-	-	-	-	-	-	-
Method of discovery (surface/subsurface)	Sub	Sub	Sub	Sur	Sur	Sur	Sur	Sur	Sur	Sur	Sur	Sur	Sur	Sur	Sur	Sur	Sur	Sur	Sur	Sur	Sur
Number of subsurface test units	5	5	5	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	1	0	0
Soil type	SK WnB/SK	WnB	WnB	WnB	WnB	WnB	WnB	WnB	WnB	WnB	WnB	WnB	WnB	WnB	WnB	WnB	WnB	WnB	WnB	WnB	WnB
Elevation (feet ASL)	20	15	3-5	10	10	5-10	5-8	12	10	3-5	8-10	8	10	10	10	6	5	16	10	12	4
Nearest water (meters)	300	200	5	60	10	10	5	80	25	10	15	15	15	15	15	10	5	80	3	50	5
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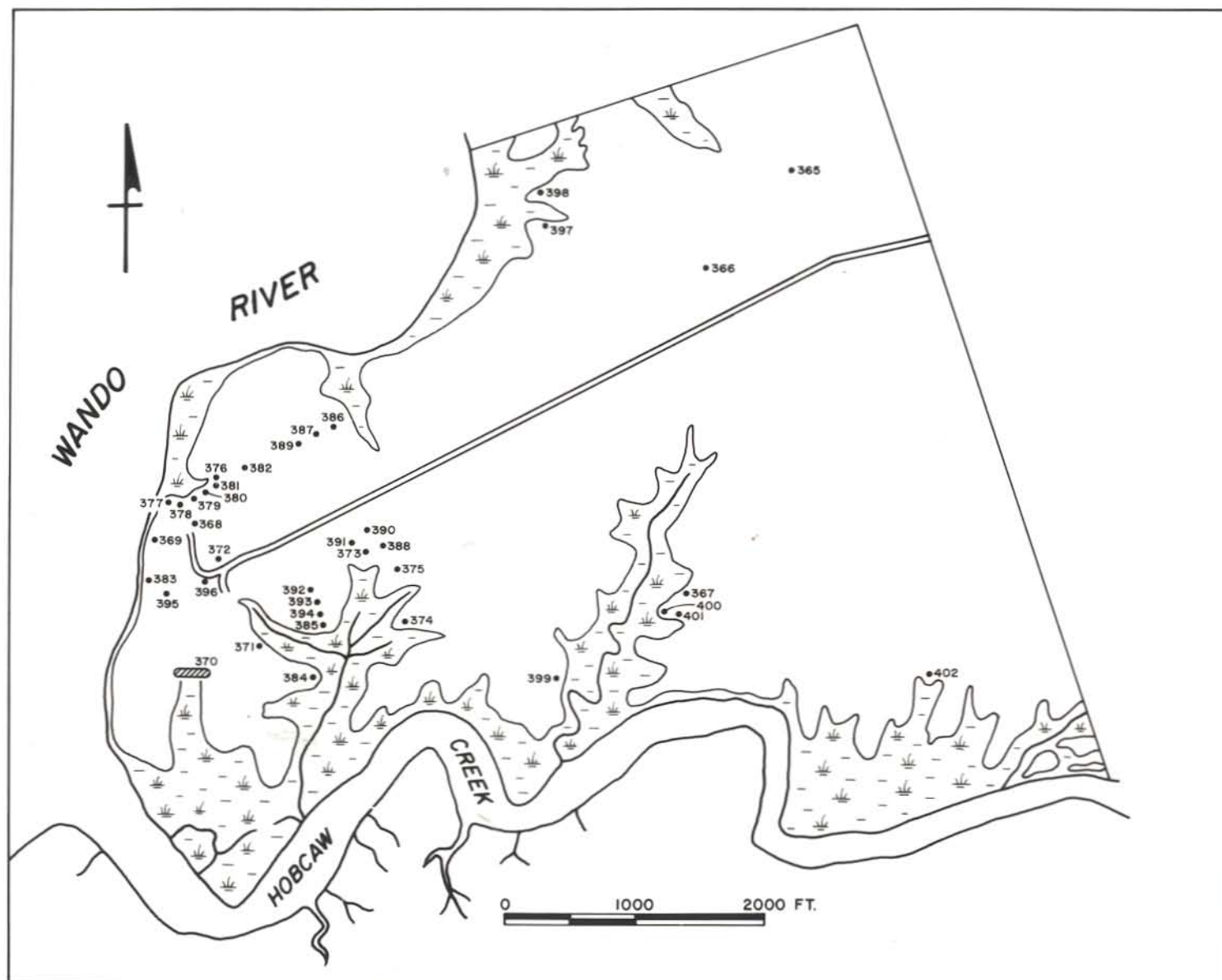
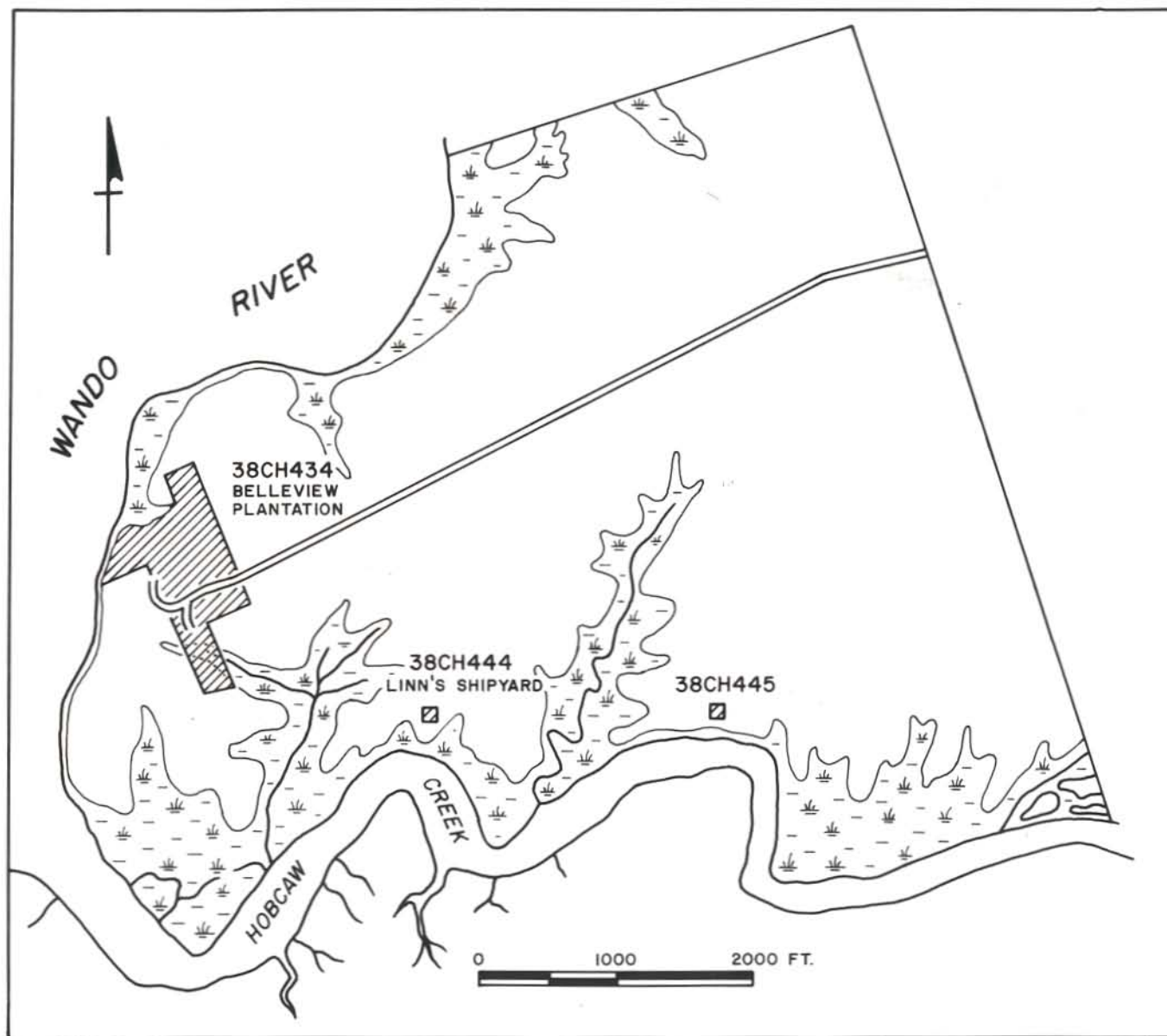


FIGURE 8: Map showing the location of the prehistoric sites recorded during the survey.



ERD '80

FIGURE 9: Map showing the location of the Historic period sites recorded during the survey.

northern section of the project area. The Test Unit was expanded to a 1 m square and several oyster shell fragments were recovered. In order to determine site extent and density, four additional $\frac{1}{2}$ m test units were excavated 10 m to the north, south, east and west of Test Unit 3C. The test unit to the south of 3C produced additional ceramic and shell material.

The site is situated on the south facing slope of the bluff overlooking the marsh of Bermuda Creek to the north. The terrain in the site area is relatively flat with a 2-4% slope to the north toward the creek. The vegetation in the site area was primarily an oak upperstory with a moderately dense understory of hardwood shrubs and vines. The soil is from the Wando series and consists of a light gray sandy organic zone (0-15 cm) over a light yellow-tan fine sand (15-50 cm). The cultural material was recovered from the "B" horizon soils at a depth of 18-22 cm below the ground surface.

Cultural material:

Provenience 2

- 1-curvilinear complicated stamped fine to coarse tempered prehistoric ceramic fragments with interior smoothing
- 1-Wilmington undecorated sherd tempered prehistoric ceramic fragment

Provenience 3

- 1-Wilmington fabric impressed sherd tempered ceramic fragment
- 1-Wilmington cord marked sherd tempered prehistoric ceramic fragment with a row of reed punctations below the rim

38CH367

Site 38CH367, which consisted of a small undisturbed shell midden, was located during the sampling phase of the survey. Two prehistoric ceramic fragments were recovered from Test Unit H of Transect 12 through the southern section of the project area. Both sherds were found in association with a heavy concentration of whole and fragmented oyster shell. The concentration of shell began at the interface of the organic and "B" horizon soil and continued to a depth of 50 cm. The development of a mature soil profile above the midden, along with the relatively large size of the sherds and presence of whole oyster shell, indicates that the site is undisturbed.

In order to more accurately determine site extent and density, four additional $\frac{1}{2}$ m test units were excavated at 5 m intervals from the original test square. Two test units, to the south and east of 12H, yielded additional shell in the first 10 cm of the "B" horizon soils. No additional ceramics were recovered from the test excavations. A 30x30 cm shell column was excavated in 5 cm levels directly adjacent to Test Unit 12H during a later reexamination of the site. The purpose of the shell column was to recover sufficient material for submission to Carbon 14 analysis to obtain a representative sample of species present at the

site. The material was water screened in order to obtain total recovery of the floral and faunal material present.

Except for one fragmented mussel shell, all of the shellfish material consisted of oyster shell. In addition, several charred hickory or walnut fragments and five deer bone fragments were recovered from the sample.

Examination of the oyster shell material by Michael Andrejko of the Geology Department at the University of South Carolina indicated that the oysters were primarily subtidal ranging from 2½ to 5 years old and that they were collected during the late summer or early fall of the year. Subtidal oysters are submerged throughout the year and, while more difficult to obtain, are generally bigger and of higher quality.

These samples of shell were submitted to the radiocarbon laboratory at Queen's College with the following results:

C-14 dates: Queens College: on oyster shell

QC 786-10-15 cm-1345±100 BP

QC 787-20-25 cm-1250±90 BP

QC 788-35-40 cm-1535±95 BP

This fairly tight range of dates combined with the narrow seasonal collection range suggest a one time, short-term utilization of the site area.

The site is situated on a small elevated tongue extending westward into the marsh adjacent to a tributary of Hobcaw Creek. The terrain slopes toward the marsh to the south, east, and north and the vegetation consists of a pine, gum and oak upperstory with a moderately dense understory of small hardwoods, vines, and briars. The soil is from the Wando series and consists of a medium gray sandy organic zone (0-15 cm) over a medium yellow-tan sand (15-50 cm). The cultural material, both shell and ceramics, were recovered from the "B" horizon soil between 15-50 cm below the ground surface.

Cultural material:

1-Wilmington undecorated sherd tempered prehistoric ceramic fragment with mica inclusions in the paste

1-Wilmington fabric impressed prehistoric ceramic fabric with sherd temper and mica inclusion in the paste

38CH368

Site 38CH368 consists of four prehistoric ceramic fragments which were recovered from a 50x50 m collection unit during the Phase I examination of the cleared tract. The actual extent of the site, however, is probably much smaller. The site is situated on an east-west ridge which runs along the bluff overlooking the Wando River marsh to the north. The terrain is relatively flat to the east and west, slopes gently 2-3% to

the south, but drops more dramatically 4-5% to the north toward the marsh. The soils in the site area are from the Wando series and the cultural material seemed to be associated with the "B" horizon soils. All of the vegetation was moved from the site area during clearing of the tract.

Cultural material:

- 1-undecorated fine sand tempered prehistoric ceramic fragment with mica inclusions in the paste
- 1-undecorated Wilmington sherd tempered prehistoric ceramic fragment with mica inclusions in the paste

38CH369

Site 38CH369 consists of four prehistoric ceramic fragments which were recovered from a 50x80 m collection unit during the Phase I intensive examination of the cleared tract. The actual extent of the site, however, is much smaller with all of the artifacts coming from an area of approximately 8x8 m within the collection unit. The site is situated on the bluff edge overlooking the Wando River to the west. The terrain in the site area is relatively flat with a gradual .5 to 1% slope to the southwest toward the headwaters of a tributary of Hobcaw Creek. The soils in the site area are from the Wando series with the cultural material apparently associated with "B" horizon yellow-tan sand which was exposed during the clearing of the tract. All of the vegetation in the site area was removed prior to the survey.

Cultural material:

- 1-Wilmington undecorated sherd tempered prehistoric ceramic fragment with mica inclusions in the paste and interior and exterior smoothing and scraping
- 2-Wilmington undecorated sherd tempered prehistoric ceramic fragments with mica in the paste and exterior smoothing
- 1-Wilmington undecorated sherd tempered prehistoric basal ceramic fragment with mica inclusions in the paste and interior exterior smoothing and scraping

38CH370

Site 38CH370 consists of a small, low density scatter of prehistoric and historic artifacts associated with a shell scatter over an area of 30x50 m. It is located 20 m east and 9 m south of South Carolina Grid Coordinate N363,900 and E2,340,000. The site is situated near the headwaters of a small drainage which leads into Hobcaw Creek. Both historic and prehistoric material can be found on both sides of the drainage, but the highest concentration of material is on the eastern side. The terrain in the site area slopes 2-3% towards the drainage. Analysis of the shellfish remains indicates that both intertidal and subtidal oysters were utilized. The analysis also indicated that the

shellfish were from 2-3 years old when collected and were probably gathered during the winter, from January to March (Andrejko, Personal Communication).

A 1x1 m test unit was excavated in the woods adjacent to the site, 32 m east and 27 m south of the state grid point. No shell or historic material was recovered from the test; however, one prehistoric ceramic fragment was recovered from the yellow-tan sand horizon at a depth of 35 cm. The soil is a loamy fine sand from the Wando series and, as indicated by the test excavation, consists of 0-15 cm of light gray fine sand with heavy root and organic material, 15-30 cm of light gray fine sand which becomes moist with depth, and 35-50 cm of medium yellow-tan fine sand approaching saturation at 50 cm below the surface. The vegetation in the adjacent wooded area consists primarily of an oak-gum hardwood upperstory with a moderately dense understory of vines and small hardwoods.

Cultural material:

Provenience 1

Prehistoric:

- 9-undecorated fine to coarse sand tempered ceramic fragments
- 1-undecorated fine to coarse sand tempered ceramic fragment with exterior scraping
- 1-undecorated fine sand tempered ceramic fragment
- 1-Wilmington undecorated sherd tempered ceramic fragment
- 6-Wilmington fabric impressed sherd tempered ceramic fragments
- 1-Cape Fear fabric impressed fine to coarse sand tempered ceramic fragment
- 4-Cape Fear cord marked fine to coarse sand tempered ceramic fragments
- 1-Wilmington cord marked sherd tempered ceramic fragment
- 3-Wilmington simple stamped or cord marked sherd tempered ceramic fragment with mica inclusions in the paste

Historic:

- 5-brick fragments

Provenience 2:

Prehistoric:

- 1-undecorated fine to coarse sand tempered ceramic fragment

38CH371

Site 38CH371 is located approximately 3 m southeast of South Carolina Grid Coordinate N364,300 and E2,341,000 and consists of three prehistoric ceramic fragments which were exposed during the clearing of the tract. Historic period Locus 3A, associated with Belleview Plantation and consisting of one historic artifact and shell scatter, is located to the northwest of the site. The ceramic material was recovered from an area of approximately 5x2 m. Physiographically, the site is situated on a small tongue overlooking a tributary of Hobcaw Creek to the east. The terrain is relatively flat but slopes 3-5% to the east toward the tributary.

The soils in the site area are from the Wando series and the cultural material was apparently associated with the "B" horizon soils which had been exposed by the clearing. The presence of an orange compact clay indicates that the soils have less depth in this area. All vegetation had been removed from the site area prior to the survey.

Cultural material:

- 1-undecorated, fine to coarse sand tempered prehistoric ceramic fragment with interior scraping
- 1-Wilmington simple stamped, sherd tempered prehistoric ceramic fragment
- 1-Thom's Creek finger pinched, fine to coarse sand tempered prehistoric ceramic fragment

38CH372

Site 38CH372 consists of one prehistoric ceramic fragment found near Locus 4A of Belleview Plantation. The site is situated on a slope overlooking a tributary of Hobcaw Creek to the south. The terrain in the site area slopes 4-6% to the south toward the drainage. The soil is a loamy fine sand from the Wando series and the cultural material was apparently associated with the "B" horizon yellow-tan sand which had been exposed during clearing of the tract. All vegetation in the site area had been removed prior to the survey.

Cultural material:

- 1-Cape Fear fabric impressed, fine to coarse sand tempered prehistoric ceramic fragment

38CH373

Site 38CH373 was located during the Phase I intensive examination of the cleared tract of the project area. The site is situated on a small tongue overlooking a tributary of Hobcaw Creek to the south. The terrain is relatively flat in the area with a slight 1-2% rise to the north, but the terrain to the south of the site slopes 5-6% toward the tributary. Cultural material was recovered from the surface over an area of approximately 4x4 m and in apparent association with the "B" horizon yellow-tan sand which had been exposed during the clearing of the tract. The site was reexamined after a rain but no additional material was recovered. The vegetation in the site area had been removed prior to the survey.

Cultural material:

- 1-undecorated Wilmington sherd tempered prehistoric ceramic fragment

1-undecorated fine sand tempered prehistoric ceramic fragment with mica inclusions in the paste and interior and exterior smoothing

38CH374

Site 38CH374 was located during the Phase I examination of the clear-cut tract which had been timbered prior to the survey. Three prehistoric ceramic fragments were recovered from an area of approximately 10x15 m and were in association with the "B" horizon soils which had been exposed by the clearing activities. The site is situated on a small tongue which protrudes into the marsh of a tributary of Hobcaw Creek. The terrain in the site area slopes from north-northeast to the south-southwest approximately 2-3%. The soil is a loamy fine sand from the Wando series and the vegetation in areas directly adjacent to the site consists of a hardwood upperstory with a hardwood shrub, vines and bush understory and more salt tolerant vegetation along the low tidal areas.

Cultural material:

2-Thom's Creek punctate, fine sand tempered prehistoric ceramic fragments with mica inclusions in the paste
1-Thom's Creek linear punctate, fine sand tempered prehistoric ceramic fragment with mica inclusions in the paste
2-undecorated fine sand tempered prehistoric ceramic fragments with mica inclusions in the paste

38CH375

Site 38CH375 is located across a small drainage, approximately 90 m north, from Site 38CH374 and was recorded during the Phase I examination of the clear cut tract of the project area. Two prehistoric ceramic fragments were recovered from an area of approximately 5x5 m and were in association with the "B" horizon yellow-tan sand which had been exposed during the timbering of the area.

The site is situated on a small tongue which protrudes into the marsh of a tributary of Hobcaw Creek. The terrain in the site area slopes from the north-northeast to the south-southwest approximately 2-3% toward the marsh. The soils consist of a loamy fine sand from the Wando series and vegetation in areas directly adjacent to the site consists of an upperstory of mixed hardwoods with an understory of hardwood shrubs and vines with more salt tolerant vegetation along the low areas of the marsh.

Cultural material:

2-Cape Fear fabric impressed, coarse sand tempered prehistoric ceramic fragments

38CH376

Site 38CH376 was recorded during the Phase IV reexamination of the cleared tract and is situated along the northern border of the clearing on a relatively flat ridge overlooking the marsh of the Wando River. Two prehistoric ceramic fragments were recovered from an area of approximately 3x3 m. The terrain in the site area is relatively flat to the south, east and west, but drops off dramatically 8-10% toward the river to the north. The soils in the site area are from the Wando series and the cultural material is associated with the yellow-tan "B" horizon soils which had been exposed by clearing of the area. The vegetation in the wooded areas adjacent to the site consists of an oak upperstory with a moderately dense understory of hardwood shrubs, vines, and briars. Due to the proximity of the site to the woods, two 50x50 cm test units were excavated in an undisturbed area adjacent to the site. No additional material was recovered.

Cultural material:

- 1-Cape Fear cord marked, fine sand tempered prehistoric ceramic fragment
- 1-Wilmington fine check or simple stamped, sherd tempered prehistoric ceramic fragment

38CH377

Site 38CH377 was located during the Phase IV reexamination of the clear cut tract and is situated along the bluff edge overlooking the marsh of the Wando River to the north. Five prehistoric ceramic fragments were recovered from an area of approximately 2x4 m and were in association with "B" horizon yellow-tan sand which had been exposed by the clearing of the tract. Several oyster shell fragments were also located in the site area but they appeared to be associated with recent Historic period activity.

The terrain in the site area is relatively flat to the south and east but drops off dramatically 15-18% toward the Wando River to the west and north. The soil in the site area is a loamy fine sand from the Wando series. All vegetation had been removed from the site prior to the survey.

In order to determine the relationship of the ceramics to the shell, a 1x1 m Test Unit was excavated at the site. No shell was recovered, but one baked clay object was recovered from the yellow-tan sand horizon approximately 25-30 cm below the ground surface. An additional 50x50 cm test unit was excavated approximately 5 m to the west of the original but no additional material was recovered.

Cultural material:

Provenience 1:

- 3-undecorated, fine sand tempered prehistoric ceramic fragments with mica inclusion in the paste
- 1-undecorated, fine to coarse sand tempered prehistoric ceramic fragment
- 1-Thom's Creek incised, fine sand tempered prehistoric ceramic fragment with mica inclusions in the paste

Provenience 2:

- 1-possible baked clay object

38CH378

Site 38CH378 was recorded during the Phase IV reexamination of the clear cut tract of the project area and is situated on the bluff edge overlooking the marsh of the Wando River to the north. Seven prehistoric ceramic fragments were recovered from an area of approximately 10x2 m. The terrain in the site area is relatively flat to the south, west, and east, but drops off dramatically 15-18% toward the river to the north. The soils in the area are from the Wando series and cultural material was associated with the "B" horizon yellow-tan sand which had been exposed by the clearing of the tract. All of the vegetation had been removed from the site prior to the survey.

Cultural material:

- 4-Deptford check stamped, fine to coarse tempered prehistoric ceramic fragments
- 1-Wilmington fabric impressed, sherd tempered prehistoric ceramic fragment
- 1-Deptford check stamped, fine to coarse sand tempered prehistoric ceramic fragment with interior and exterior stamping
- 1-undetermined decorated, fine to coarse sand tempered prehistoric ceramic fragment

38CH379

Site 38CH379 was recorded during the Phase IV reexamination of the clear cut tract of the project area. It is situated on the bluff edge overlooking the marsh of the Wando River to the north. The site is located approximately 60 m east of Site 38CH378. Prehistoric ceramic material was found sparsely scattered over an area of approximately 23x35 m. The terrain is relatively flat to the south, east and west of the site, but slopes dramatically 12-15% toward a small tongue protruding into the marsh of the Wando River approximately 15 m to the north. The soils in the site area are from the Wando series and the cultural material was associated with the "B" horizon yellow-tan sand which had been exposed during the clearing of the tract. All of the vegetation in the site area had been removed prior to the survey.

Cultural material:

- 4-undecorated, fine to coarse sand tempered prehistoric ceramic fragments
- 1-undetermined, deteriorated decorated, fine to coarse sand tempered prehistoric ceramic fragment
- 1-Wilmington fabric impressed, sherd tempered prehistoric ceramic fragment with interior and exterior smoothing

38CH380

Site 38CH380 was recorded during the Phase IV reexamination of the cleared tract and is situated on the bluff overlooking the marsh of the Wando River to the north. It is located approximately 44 m northeast of Site 38CH379. Two prehistoric ceramic fragments were recovered approximately 10 m apart and were associated with the yellow-tan sand "B" horizon soil which had been exposed by the clearing of the tract. The artifacts were situated down slope from the bluff edge overlooking the marsh of the Wando River approximately 10 m to the north. The soils in the site area are from the Wando series. All vegetation in the area had been removed prior to the survey.

Cultural material:

- 1-undecorated, fine sand tempered prehistoric ceramic fragment with exterior smoothing

38CH382

Site 38CH382 was recorded during the Phase IV reexamination of the cleared tract and is located along the northern clearing line approximately 83 m 98° east of north from station N365,383, E2,341,000. Two prehistoric artifacts were recovered from an area of approximately 20x2 m and were in association with "B" horizon yellow-tan sand which had been exposed by clearing of the tract. The terrain in the site area is relatively flat but slopes lightly 2-5% to the south-southeast. The soil is a loamy fine sand from the Wando series. Vegetation in the woods adjacent to the site consists of an upperstory of pine and oak and a moderately dense understory of vines, briars, and hardwood shrubs.

Cultural material:

- 1-rhyolite thinning flake
- 1-Wilmington, undecorated sherd tempered prehistoric ceramic fragment

38CH383

Site 38CH383 was recorded during the Phase IV reexamination of the cleared tract of the project area and is situated on the bluff overlooking the headwaters of a tributary of Hobcaw Creek to the southeast and the

Wando River to the west. One prehistoric ceramic fragment was found in association with the "B" horizon tan-brown sand which had been exposed during the clearing of the tract. The terrain in the site area is relatively flat to the north, west, and east, but slopes lightly 2-4% toward the tributary to the south-southeast. The soils are a loamy fine sand from the Wando series. All vegetation had been removed from the site prior to the survey.

Cultural material:

- 1-undecorated, fine sand tempered prehistoric ceramic fragment with exterior and interior smoothing

38CH384

Site 38CH384, which was recorded during the Phase IV reexamination of the cleared tract, is situated on a ridge tongue that extends into a tributary of Hobcaw Creek in the southern portion of the tract. Two prehistoric ceramic fragments were recovered from the "B" horizon yellow-tan sand which had been exposed by clearing activities. The terrain in the site area is relatively flat but eventually drops off to the north, east, and south toward the tributary marsh. The soils are a loamy fine sand from the Wando series. All vegetation had been removed from the site prior to the survey.

Cultural material:

- 1-Thom's Creek (Awendaw) finger pinched, fine to coarse sand tempered prehistoric ceramic fragment with interior smoothing
- 1-undecorated, fine to coarse sand tempered prehistoric ceramic fragment

38CH385

Site 38CH385 was recorded during the Phase IV reexamination of the cleared tract of the project area and is situated on a ridge tongue which extends into a tributary of Hobcaw Creek to the south. Three prehistoric ceramic fragments were scattered over an area of approximately 2x2 m. The terrain in the site area was relatively flat with a slight slope of approximately 2% to the south toward the marsh. The soils are from the Wando series and the cultural material was associated with the "B" horizon yellow-tan sand which had been exposed by clearing of the tract. All vegetation had been removed from the site prior to the survey.

Cultural material:

- 1-broad simple-stamped, fine to coarse sand tempered prehistoric ceramic fragment
- 2-undecorated, fine to coarse and tempered prehistoric ceramic fragments with interior and exterior smoothing

38CH386

Site 38CH386 was recorded during the Phase IV reexamination of the cleared tract and is situated in the northeast corner of the tract overlooking a small tributary of the Wando River to the east-northeast. Eight prehistoric ceramic fragments were recovered from an area of approximately 20x32 m. The terrain in the site area is relatively flat but drops off 4-6% toward the tributary beyond the bluff edge. The soils are from the Wando series and the cultural material was associated with the "B" horizon yellow-tan sand. The vegetation in areas directly adjacent to the site consists of a pine-hardwood upperstory and an understory of moderately dense young hardwoods and vines.

Cultural material:

- 2-Cape Fear cord marked, fine to coarse sand tempered prehistoric ceramic fragments
- 1-undetermined, deteriorated stamped, fine sand tempered prehistoric ceramic fragment
- 1-Wilmington undecorated, sherd tempered prehistoric ceramic fragment
- 3-undecorated, fine sand tempered prehistoric ceramic fragment with interior and exterior smoothing
- 1-undecorated, fine to coarse sand tempered prehistoric ceramic fragment

38CH387

Site 38CH387 was recorded during the Phase IV reexamination of the cleared tract of the project area and is located approximately 35 m west of Site 38CH386. Four prehistoric ceramic fragments were recovered from an area of approximately 30x15 m in association with the yellow-tan "B" horizon soils which had been exposed by the clearing of the tract. The site is situated on a relatively flat ridge top overlooking a tributary of the Wando River to the east. The terrain in the site area slopes approximately 1-2% to the east toward the tributary. All vegetation had been removed from the site prior to the survey.

Cultural material:

- 3-Wilmington undecorated sherd tempered prehistoric ceramic fragments
- 1-Wilmington fabric impressed sherd tempered prehistoric ceramic fragment

38CH388

Site 38CH388 which was recorded during the Phase IV reexamination of the clear cut area is located approximately 30 m east-northeast of Site 38CH373 overlooking a small tributary of Hobcaw Creek. One prehistoric ceramic fragment was recovered from the yellow-tan sand "B" horizon soils which had been exposed during the clearing of the tract. The

terrain in the site area is relatively flat with a slight 1-2% slope toward the inlet to the south. The soils are a loamy fine sand from the Wando series. All vegetation had been cleared from the site prior to the survey.

Cultural material:

1-undecorated, fine sand tempered prehistoric ceramic fragment with exterior smoothing and interior scraping

38CH389

Site 38CH389 is located in the clear cut tract approximately 20 m west of Site 38CH387 and approximately 55 m west-southwest of Site 38CH386. Three prehistoric ceramic fragments were recovered from an area of approximately 3x3 m and were associated with the "B" horizon yellow-tan sand which was exposed by timbering and clearing of the tract. The terrain is relatively flat but slopes slightly 1-2% from west to east toward a small tributary of the Wando River. The soils in the site area are a loamy fine sand from the Wando series. The vegetation in the wooded areas directly adjacent to the site consist of an upperstory of pine and hardwoods and a moderately dense understory of young hardwoods and briars.

Cultural material:

3-Wilmington sherd tempered undecorated prehistoric ceramic fragments with interior and exterior smoothing

38CH390

Site 38CH390 is located in the cleared tract of the project area approximately 50 m north of Site 38CH373 and approximately 50 m south of the road which runs through the area. Two prehistoric ceramic fragments were recovered approximately 6 m apart in association with the "B" horizon tan-brown sand which had been exposed by clearing of the tract. The terrain is relatively flat in all directions. The soils are a loamy fine sand from the Wando series. All vegetation had been cleared from the site prior to the survey.

Cultural material:

1-undecorated fine sand tempered prehistoric ceramic fragment with interior smoothing
1-undecorated fine to coarse sand tempered prehistoric ceramic fragment with interior scraping

38CH391

Site 38CH391 was recorded during the Phase IV reexamination of the cleared tract and is located approximately 40 m west-northwest of Site 38CH373 overlooking the headwaters of a tributary of Hobcaw Creek. One prehistoric ceramic fragment was recovered in association with the "B" horizon tan-brown sand which had been exposed by timbering and clearing of the tract. The terrain is relatively flat with a slight 2-3% slope to the south-southeast toward the tributary marsh. The soils are a loamy fine sand from the Wando series. All vegetation in the site area had been removed prior to the survey.

Cultural material:

- 1-undecorated, coarse sand tempered prehistoric ceramic fragment

38CH392

Site 38CH392 was recorded during the Phase IV reexamination of the cleared tract and is located on a ridge tongue which extends into the marsh of a tributary of Hobcaw Creek. One rhyolite flake was recovered from the "B" horizon yellow-tan sand which had been exposed by clearing of the tract. The terrain in the site area is relatively flat with an eventual drop off into the marsh of the Hobcaw tributary to the south, west, and east of the site. The soils are a loamy fine sand from the Wando series. All vegetation had been removed from the site prior to the survey.

Cultural material:

- 1-porphoritic rhyolite thinning flake

38CH393

Site 38CH393 was recorded during the Phase IV reexamination of the cleared tract and is located approximately 50 m south of Site 38CH372 on a ridge tongue overlooking a tributary and marsh of Hobcaw Creek. Six prehistoric ceramics fragments were recovered from an area of approximately 20x20 m. The terrain in the site area is relatively flat but eventually drops off into the marsh of the Hobcaw to the west, south, and east. The soil is from the Wando series and the cultural material was associated with the "B" horizon yellow-tan sand which had been exposed by the clearing of the tract. All vegetation had been removed from the site prior to the survey.

Cultural material:

- 4-Wilmington undecorated sherd tempered prehistoric ceramic fragments with mica inclusions in the paste and interior and exterior smoothing
- 2-undecorated fine sand tempered prehistoric ceramic fragments

38CH394

Site 38CH394 was recorded during the Phase IV reexamination of the cleared tract of the project area. It is situated on a ridge tongue overlooking the marsh and a tributary of Hobcaw Creek. One prehistoric ceramic fragment was recovered from the yellow-tan "B" horizon soil which had been exposed during the clearing of the tract. The terrain is relatively flat with a slight 1-2% slope to the south toward the creek and marsh. The soil is from the Wando series. All of the vegetation in the site area had been cleared prior to the survey.

Cultural material:

1-undecorated, fine sand tempered prehistoric ceramic fragment with interior and exterior smoothing

38CH395

Site 38CH395 was recorded during the Phase IV reexamination of the cleared tract of the property and is located approximately 150 m east of the Wando River bluff edge. Two prehistoric ceramic fragments were recovered approximately 4 m apart and were associated with the tan-brown "B" horizon soil which had been exposed by clearing of the property. The site is situated along a ridge top overlooking the headwaters of a tributary of Hobcaw Creek. The terrain is relatively flat to the west, north, and east, but slopes 2-3% to the south toward the drainage. The soils are a loamy fine sand from the Wando series. All vegetation in the site area had been removed prior to the survey.

Cultural material:

1-Mississippian complicated stamped with reed punctations, fine sand tempered with mica inclusions in the paste prehistoric ceramic fragment

1-probable Mississippian undecorated burnished exterior fine sand tempered prehistoric ceramic fragment with mica inclusions in the paste

Both fragments have smoothed and smudged interiors.

38CH396

Site 38CH396 was located during the Phase IV reexamination of the cleared tract of the Wando property. It is situated approximately 100 m east of Site 38CH395 on a ridge top overlooking the headwaters of a tributary of Hobcaw Creek to the south. The terrain in the site area is relatively flat but eventually slopes 3-5% toward the tributary to the south. One prehistoric ceramic fragment was recovered from the tan-brown "B" horizon of the Wando series soil which had been exposed during the timbering and clearing in the site area. All of the vegetation in the area had been removed prior to the survey.

Cultural material:

- 1-Cape Fear cord marked, fine to coarse sand tempered prehistoric ceramic fragment

38CH397

Site 38CH397 was recorded during a Phase III transect around the northern edge of the project area. One prehistoric ceramic fragment in association with a dense concentration of shell was recovered from a 50x50 cm test unit which was excavated along the transect. The unit was expanded to a meter with additional material being recovered. Six additional 50x50 test units were excavated at intervals of 5 m around the site. Two of the units, south and west, produced additional shell fragments; however, no additional ceramics were recovered from any of the test excavations. Analysis of the shell material indicates that intertidal oysters are dominant and that they ranged from 3-4 years when collected. In addition, the oysters appear to have been collected during the spring of the year, probably in April or May (Andrejko, Personal Communication).

The site is situated on a small ridge tongue overlooking a small marsh inlet of the Wando River to the north. The site is approximately 5 m from the marsh edge and 1 to 1.5 m above the water mark. The terrain is relatively flat but with a slight 1-2% slope to the north-northeast. The vegetation in the site area consists of an oak-hickory-pine forest upperstory with an understory of moderately dense vines and briars.

The soil is from the Wando series and consists of a dark black organic zone (0-12 cm) over a yellow-tan fine sand (12 cm and below). The shell begins at approximately 5 cm below the surface and ends approximately 3 cm into the yellow-tan sand, or 15 cm below the ground surface. The cultural material seems to come from the black midden-yellow-tan sand interface approximately 5-15 cm below the ground surface. The shell, which consists of oyster, conch and clam, is most dense in the dark black zone between 8 and 12 cm below the surface.

Cultural material:

Provenience 2:

- 1-simple stamped prehistoric ceramic fragment with limestone temper
- 1-undecorated prehistoric ceramic fragment with limestone temper

38CH398

Site 38CH398 was recorded during a Phase III transect around the northern edge of the project area. One prehistoric ceramic fragment was recovered from a 50x50 cm test unit which was excavated along the transect. The test unit was expanded to a meter square where additional

material was recovered. Due to the lack of available time, no additional test units were excavated at this site.

The site is located on the north face of a small tongue which protrudes into the marsh of the Wando River. It is situated approximately 8 m from the marsh edge and approximately 1 m above the marsh floor. The terrain in the site area is relatively flat but slopes slightly 1-2% to the north toward the marsh. The vegetation consists of an oak-hickory forest with some pine present and an understory of palmetto and some hardwood shrubs.

The soil is from the Wando series, and as indicated by Test Unit 1, consists of a light gray loose organic zone (0-15 cm) over a yellow-tan sand (15-30+ cm). The cultural material was recovered from the "B" horizon yellow-tan sand.

Cultural material:

2-simple stamped prehistoric ceramic fragments with fine sand temper

38CH399

Site 38CH399 was recorded during a Phase III transect around the southern edge of the project area. One prehistoric ceramic fragment was recovered from a 50x50 cm test unit which was excavated along the transect. The test unit was expanded to a meter and additional material was recovered. Four additional 50x50 cm test units were excavated to the north, south, east and west of the original, but no additional material was recovered.

The site is located on a ridge tongue which extends into the marsh of Hobcaw Creek. It is situated approximately 5 m from the bluff edge and approximately 2 m above the marsh floor. The terrain is relatively flat but with a gentle slope 2-3% to the north, east, and south toward the marsh. The vegetation consists of an oak-hickory-pine upperstory and an understory of occasional hardwood shrub.

The soil is from the Wando series and consists of a light gray, loose organic zone (0-15 cm) over a yellow-tan sand "B" horizon (15-40+ cm). The ceramic material was recovered from the yellow-tan sand approximately 15-30 cm from the ground surface.

Cultural material:

Provenience 2

1-undecorated prehistoric ceramic fragment with fine to coarse sand temper
1-Wilmington undecorated prehistoric ceramic fragment with sherd temper

38CH400

Two prehistoric ceramic fragments were recovered from a 50x50 cm test unit around the northern edge of the project area. The unit was expanded to a 1x1 m square and four additional 50x50 cm test units were excavated 5 m from the original test. No additional material was recovered from the test units.

This site is located on a ridge tongue overlooking the marsh of Hobcaw Creek to the west. It is situated approximately 10 m from the marsh edge and approximately 1-1.5 m above the marsh floor. The terrain in the site area is relatively flat with a gentle slope 2-3% to the north, west, and south toward the marsh. The vegetation consists of an upperstory of oak and pine and an understory of vines, briars and young hardwoods.

The soil is from the Wando series and consists of a light gray, loose organic zone (0-15 cm) over a yellow fine sand (15-40+ cm). The artifacts were recovered from the yellow sand at a depth of 15-20 cm below the ground surface.

Cultural material:

Provenience 2

- 1-Thom's Creek/Awendaw finger pinched prehistoric ceramic fragment with fine sand temper and interior and exterior smoothing
- 2-Thom's Creek punctated prehistoric ceramic fragments with fine sand temper and interior and exterior smoothing

38CH401

Site 38CH401 is located approximately 20 m southeast of site 38CH400. Two undecorated prehistoric ceramic fragments were recovered from a 50x50 cm test unit during a Phase III transect around the southern edge of the project area. The test unit was expanded to a 1x1 m square and three additional ceramic fragments were recovered. Subsequently four additional 50x50 cm test units were excavated 5 m from the original test. No additional material was recovered.

The site is located on a ridge tongue overlooking the marsh of Hobcaw Creek to the west. It is situated approximately 15 m from the marsh edge and approximately 1.5 to 2 m above the marsh floor. The terrain is relatively flat in the site area with a gentle 1-2% slope to the south, west, and north toward the marsh. The vegetation consists of an upperstory of oak and pine and an understory of vines, briars and young hardwoods.

The soil is from the Wando series and consists of a light gray, loose organic zone (0-15 cm) over a yellow fine sand (15-40+ cm). The artifacts were recovered from the yellow sand approximately 15-25 cm below the ground surface.

Cultural material:

5-undecorated prehistoric ceramic fragments with fine to coarse sand temper with mica inclusions in the paste and interior and exterior smoothing

38CH402

Site 38CH402 was recorded during a Phase III transect around the southern edge of the project area. Two prehistoric ceramic fragments and a moderate density of oyster shell were recovered from a 50x50 cm test excavation. The unit was expanded to a meter square but no additional material was recovered. In addition, four 50x50 cm test units were excavated 5 m from the original, with one ceramic fragment occurring in the southern test unit. No other artifacts or shell was recovered. Analysis of the shell remains indicate that intertidal oysters are dominant and that they were 1-3 years old when collected (Andrejko, Personal Communication).

This site is situated on the bluff edge overlooking the Hobcaw Creek marsh to the south. The terrain in the site area is relatively flat with a gentle slope 1-2% to the south toward the marsh approximately 15-20 meters away. The vegetation in the site area consists of an oak-pine upperstory and an understory of moderately dense vines, briars and hardwood shrubs.

The soil is from the Wando series and consists of a light to medium gray, loose organic zone (0-15 cm) over a yellow-tan sand "B" horizon (15-40+ cm). Both shell and ceramic material were recovered from the yellow-tan sand approximately 15-25 cm below the ground surface.

Cultural material:

Provenience 2:

2-undecorated prehistoric ceramic fragments with fine to coarse sand temper

Provenience 3:

1-simple stamped prehistoric ceramic fragment with fine sand temper

38CH434

Documentary evidence indicates that this site represents the remains of a Colonial period and nineteenth century plantation and/or shipbuilding settlement with a modern twentieth century reoccupation. Colonial period utilization of the site appears to have been oriented toward both plantation and shipbuilding activities while nineteenth century occupation was residence/subsistence oriented with some commercial agriculture.

Archeologically, this site is represented by four spatially distinct artifact concentrations or occupation areas over a 50-60 acre area.

Each of the four occupation areas was further divided into collection units according to internal artifact clusters or according to implementation of a systematic collection transect. The physiographic and environmental setting of each occupation area will be presented below. See Tables 2 and 3 for the artifacts totals from Occupation Areas 1 and 3.

Occupation Area 1

This area represents the primary focus of the site and is located along the northern border of the cleared tract overlooking the Wando River to the west and north (Fig. 6). It is situated on an east-west oriented ridge top which runs along the northern border of the cleared field. The terrain is relatively flat to the east and west with a slight 0-2% slope to the north and south before dropping dramatically 12-15% into the Wando River to the north and west. The soils in this area are from the Wando-Seabrook association. All vegetation had been removed prior to the survey.

The remains of six structures were present in this occupation area. Four of the structures comprising Collection Unit I were clustered along the bluff edge overlooking the Wando River to the north and west and were built during the 1940s (Sheridan, Personal Communication). One of the structures (4) was the remains of a modern kitchen and chimney which was added to the original plantation house during the same time (Fig. 10). The house was destroyed by fire around 1960 (Sheridan, Personal Communication). Two additional structures, A and B, were also the remains of house chimneys and were located along the east and west ends of the ridge top. Both of these chimneys represent the remains of possible nineteenth century slave quarters and were renovated by the Sheridans (Personal Communication) during their ownership of the property (Fig. 11).

A moderate but continuous scatter of artifacts extended along the ridge top over an area of approximately 400x80 m. Based on the association of artifacts with specific structures, the occurrence of artifact clusters, and the implementation of a collection transect, the occupation area was further divided into nine collection units. The collection transect extended along a line from the Wando River bluff edge approximately 70 m to Structure A, northeastward approximately 200 m to Structure B, and ends at the woods line of the clear cut tract approximately 80 m from Structure B. The immediate areas around Structures A and B were collected as separate units (B and G). The areas from the Wando River to Structure A and from Structure B to the woods line were collected as separate 50x80 and 50x100 m units (Collection Units A and H). The area from Structure A to B was collected in equal 50x50 m units (Collection Units C, D, E, and F).

The area around the modern concrete structure was collected as one unit (Collection Unit I). Only a sparse amount of material was recovered from this area. One additional collection unit (J), consisting of a moderate density shell and artifact scatter, was located to the south of the collection transect. The material from this unit extended over an area of approximately 8x22 m.

TABLE 2

HISTORIC PERIOD ARTIFACTS FROM OCCUPATION AREA I

Occupational Area 1	Collection Unit												TOTAL
	A	B	C	D	E	F	G	H	I	J	K		
Leadglazed slipware (combed yellow)	12		2	10	1				1			26	
North Devon gravel tempered	1											1	
Decorated delftware	3		1	1								5	
Creamware	28											28	
Transfer printed pearlware	6											6	
Annular pearlware	1											1	
Underglazed blue handpainted pearlware	1											1	
Blue and green edged pearlware	1											1	
Undecorated pearlware	1											1	
Undecorated whiteware	11	1	20	49	24	36	7	6	1	5	4	164	
Transfer printed whiteware	5		3	5	2	1	1		1			18	
Hand painted whiteware			1	1							2	4	
Annular whiteware			1	8	1							10	
Blue and green edged whiteware			1			2						3	
Brown saltglazed mugs (Fulham)	2											2	
British brown saltglazed stoneware	5											5	
Westerwald (stamped)	12			5								17	
White saltglazed stoneware	3											3	
Undecorated porcelain	2	1	1	8		3	5	1		1		22	
Overglazed enamelled porcelain	1				1	1				1		4	
Underglazed blue porcelain				2								2	
Overglazed polychrome				1								1	
Transfer printed porcelain	2						1					3	
Green edged porcelain (modern)					2							2	
Yellow ware plain and decorated			2	5	3	2		2			1	15	
Alkaline glazed stoneware	1											1	
Yellow lead glazed earthenware	2											2	
Brown glazed earthenware	1											1	
Red glazed earthenware	3											3	
Brown glazed stoneware	3											3	
Sponge ware			1	2						2		5	
Albany slipware			3									3	
Light blue earthenware			1									1	
Feldspathic glazed stoneware		1	2	2								5	
Pink glazed earthenware						4						4	
Colonware	4	5										9	
Unglazed earthenware	1				1							2	
Polychrome whiteware			1		1							2	
Green glazed earthenware							1					1	
Blue bottle/jar fragments			2	1	2	2	5					12	
Blue embossed bottle/jar fragments													
Brown bottle/jar fragments	4	1	4	4	7	3		1		5		29	
Brown pressed glass tableware fragments					1							1	
Clear bottle/jar glass fragments	9	6	15	17	57	17	25	2		24	14	186	
Clear embossed bottle/jar fragments							1					1	
Clear tableware glass fragments (pressed)					3		6			1		10	
Clear pharmaceutical bottle frags						1	2		1			4	

TABLE 2 (cont.)

Occupational Area 1

	A	B	C	D	Collection Unit				I	J	K	TOTAL
					E	F	G	H				
Clear embossed pharmaceutical bottle fragments										1		1
Clear commercial milk bottle frags				3	1							4
Window/mirror glass	18	11	2	2	4	1	7			1		46
Dark-med. green bottle glass frags	24		10	7	4	5				2		52
Green and aqua bottle/jar frags	4	28	2	15	16	5	12			12	9	103
Green and aqua embossed bottle/jar frags	2	1	1				2	2				8
Green and aqua pharmaceutical				4	1	4				1		10
Green and aqua embossed pharmaceutical					1		1					2
Green and aqua tableware	1											1
Manganese bottle/jar fragments				19	9	12	3	9		9	1	62
Manganese tableware pressed glass				1	2		4					7
Manganese embossed pharmaceutical					1							1
Milk glass jar lids			4	1								5
Milk glass bottle/jar fragments				3		2	1					6
Opaque marble	1											1
Modern-including soft drink and whiskey bottle glass		12	2		4	4	5	1				28
Opaque modern	3											3
Undiagnostic glass		19										19
Cut nails		30									1	31
Wire nails		38									1	39
Modern screws		1										1
Modern structural material		14	1	5	7		7			1	2	37
Bone	5		1	1	1	2						10
Pipe stems or bowls	2			3								5

TABLE 3
HISTORIC PERIOD ARTIFACTS
FROM OCCUPATION AREA 3

[illegible]



FIGURE 10: Photograph showing the renovated plantation house at Belleview plantation.



FIGURE 11: Photograph showing a renovated slave/tenant cabin at Belleview plantation.

In addition to the collection units, a large burial vault slab was located approximately 64 m northeast of Survey Point 2. The slab was made of limestone and contained the following inscription:

Here Lyes the Body and Bones

of EDWARD CROFT to Rot

He believed in God

and the rest he knew not What.

Two test units were excavated around the tombstone but the grave was not located. The disturbed nature of the ground surrounding the tombstone and the scatter of smaller crypt fragments over a 70 m area suggest that the tombstone has been moved from its original location. One large dozer scar indicated that the original placement of the vault was possibly to the north, upslope from its present location. A plat of the survey area from 1843 shows the location of the vault in the general vicinity (Fig. 3); however, the plat is not of adequate detail to accurately place the original location. Mr. John Sheridan, former owner of the property, does not recall having seen the vault or any vault fragments (Sheridan, Personal Communication). Documentary evidence indicates that Edward Croft owned the plantation during the mid 1700s until his death in 1756.

A 1x1 m test unit (Collection Unit K) was excavated near the center of Collection Unit 1E. A moderate density of ceramics and shell material was recovered. In addition, a .5x3 m slot trench was excavated near Structure I-4 in order to determine the presence of cellars or other subsurface architectural features associated with the original plantation house. No features were located with either test excavation. See Table 2 for the inventory of the material from each of the collection units from Occupation Area 1.

Occupation Area 2

This area is located in the wooded area north of the cleared tract and is represented by three structure foundations. The first structure (A) is situated along an old road 10° east of north approximately 10 m from South Carolina Grid Coordinate N365,400 E2,341,000. The remaining two structures (B and C) are located along the old road approximately 85 and 26 m north of Structure A. All of the structures were rectangular and represent the remains of a barn and outbuildings built by the Sheridans during their ownership of the property (Sheridan, Personal Communication). A sparse amount of artifacts were recovered from Structures A and C.

Cultural material:
Collection Unit A

- 1-annular whiteware
- 1-clear prescription bottle

Collection Unit C

- 1-brown bottle glass fragment
- 5-manganese bottle glass fragments
- 3-brick fragments

Occupation Area 3

This area is located in the cleared tract beginning approximately 2 m south of South Carolina Grid Coordinate N364,300 E2,341,000. It is situated on the flat ridge top and slope overlooking a tributary of Hobcaw Creek to the east. Within this occupation area, five clusters of artifacts could be further distinguished. Table 3 is an inventory of artifacts from each of the collection units of this occupation area.

Collection Unit A

This unit consists of a light but continuous scatter of shell over an area of 57x34 m. It begins approximately 2 m south of grid point N364,300 E2,341,000 and extends 57 m along the creek bank in a north-westward direction. There are two small concentrations at each end of the scatter. They may represent the primary focus of the material with clearing disturbance having created the continuous scatter. Although the shell and brick material are associated, the artifacts are heaviest in areas with little or no shell.

Collection Unit B

This unit consists of a fairly concentrated accumulation of brick rubble with some associated shell and cultural material. The brick rubble is surrounded by six large oak trees and probably represents a small cabin. Two structures are shown in the vicinity on a 1919 U.S. Geological Survey topographic map; however, Mr. John Sheridan remembered only rubble in the area during his ownership of the property (Sheridan, Personal Communication). The rubble extends over an area of approximately 10x18 m and is located approximately 68 m, 85° west of north from grid point N364,300 E2,341,000.

Collection Unit C

This unit is located approximately 17 m south of Unit B and consists of a moderate scatter of shell and artifacts over an area of 11x8 m to the east. This probably represents spill-over from the clearing disturbance.

Collection Unit D

This unit is located approximately 17 m north of Unit B and consists of a moderate scatter of material over an area of 8x14 m. The material is primarily shell with some associated brick and artifacts. The terrain is relatively flat but is beginning to slope 3-5% to the north toward Unit E.

Collection Unit E

This unit consists of a small brick rubble concentration and is located approximately 30 m northeast of Unit D. It may represent the other structure indicated on the 1919 U.S. Geological Survey Map (Fig. 4). The material extends approximately 14x19 m with a smaller dense concentration of material in the southeast corner of the unit. The material consists of brick, mortar and historic ceramic and glass fragments.

Occupation Area 4

This occupation area is located across the tributary, north of Occupation Area 3. The unit is situated on a ridge slope overlooking the headwaters of a tributary of Hobcaw Creek to the south. The terrain slopes 4-6% toward the tributary. Two spatially distinct artifact clusters could be distinguished within this area.

Collection Unit A

This unit is situated on a slight ridge tongue which overlooks the tributary of Hobcaw Creek. It consists of a light scatter of shell, brick, and historic artifacts over an area of 27x23 m. A 1919 U.S. Geological Survey Map shows several structures in this area and Mr. Sheridan recalled having several livestock and poultry pens in the area (Sheridan, Personal Communication).

Cultural material:

- 2-undecorated whiteware
- 9-clear bottle/jar glass fragments
- 1-clear table ware glass fragment
- 1-clear embossed milk bottle fragments
- 2-window/mirror glass fragments
- 2-dark green bottle glass fragments
- 1-light green bottle glass fragments
- 3-manganese bottle glass fragments

Some shell and brick fragments were also in the area but were not collected.

Collection Unit B

This unit is situated approximately 10 m to the northeast of Unit A and consists of a scatter of brick, mortar, shingles, chicken wire and other structural material over an area of 11x25 m. The majority of the material seems to be of late origin and probably represents one of the outbuildings referred to by Mr. Sheridan.

Cultural material:

- 1-westerwald stoneware
- 1-undecorated whiteware
- 1-polychrome whiteware
- 1-clear bottle/jar glass fragment

- 1-manganese bottle/jar glass fragment
- 4-modern soft drink bottle glass fragments

Several fragments of the shingles, brick, concrete block, chicken wire and modern garden hose were observed in this collection unit but were not collected.

38CH444

Site 38CH444 represents Collection Unit 5A and was located during the Phase II transect examination of the southern section of the project area. It is situated on a peninsula of land which overlooks Hobcaw Creek to the south. Colonial period ceramics and wine bottle fragments were recovered from an erosional gully which cut through the area. Historical and documentary evidence indicates that this property was the site of a Colonial shipyard which was owned and operated by David Linn (Fig. 2). Three 50x50 cm test units were excavated in areas adjacent to the gully, but no additional material was recovered. The terrain in the site area slopes 3-4% toward the marsh of Hobcaw Creek. The vegetation consists of an upperstory of oak and other hardwoods with some scattered pine and an understory of moderately dense shrubs, briar and vines.

Cultural material:

- 1-Everted Rim, Plain Delft Ointment Pot-mean ceramic date 1750
- 2-decorated Delftware
- 1-green case bottle with pontil mark
- 2-green wine bottle base fragments
- 1-green case bottle neck and rim
- 1-green bottle neck and rim with applied top
- 3-green bottle glass fragments
- 1-clear "folded" rim glass fragment
- 1-animal vertebrae

38CH445

Site 38CH445 was located during a Phase II transect through the southern section of the project area and is located on the bluff directly overlooking Hobcaw Creek to the south. The site is presently represented by an abandoned concrete block structure built around 1946 (Sheridan, Personal Communication). Early topographic maps of the area (U.S.G.S, Charleston Quad: 1919) indicate that an earlier structure was located. The remains of a recent wooden structure apparently a dog pen, was located approximately 30 m northwest of the concrete structure. The terrain in the site area is relatively flat before dropping dramatically 12-15% into the marsh of Hobcaw Creek to the south. The vegetation consists of an upperstory of oak and pine and an understory of dense shrubs and vines. No pre-1950s artifacts were recovered from the site.

ANALYSIS OF ARTIFACTS FROM THE WANDO RIVER SURVEY

Prehistoric

Thirty-eight prehistoric archeological sites were recorded during the Wando survey. A total of 134 prehistoric artifacts were recovered from the sites. One hundred thirty-one (97.8%) of the artifacts were ceramic fragments, two (1.5%) were rhyolite thinning flakes, and one (17%) was a baked clay object.

Ceramic Analysis

Procedures of Analysis

A total of 131 ceramic fragments were recovered from 37 of the 38 prehistoric sites located during the survey. Each of the ceramics was examined and categorized according to surface treatment. Four additional variables were recorded for each fragment including temper type, presence or absence of mica in the paste, and presence or absence of interior smoothing or scraping. Where possible, sherds were placed into ware group categories (South 1976). Table 8 represents the number and percentage of variables and ware groups.

Surface Treatment

For the purpose of this analysis, surface treatment was defined as any modification to the aplastic exterior vessel surface. A total of 12 surface treatments was exhibited on the ceramics from the Wando survey. The most common form of surface treatment was smoothing which was exhibited on 26 (19.8%) of the ceramic fragments. This category was often subjective based primarily on "feel" or degree of abrasion evidenced by rubbing the sherd. Fabric impressed, cord marked, and simple stamped surface treatments were the next most common types occurring on 15 (11.5%), 11 (8.4%) and 11 (8.4%) ceramics, respectively. Various other forms of treatments were also present including incised, punctated, check stamped, scraped, burnished, complicated stamped, and finger pinched. Forty-six (35.0%) of the Wando ceramics apparently had no surface treatments while three (2.3%) had treatments which were too eroded to identify. Table 4 shows the number and percentage of surface treatments on the Wando ceramics.

TABLE 4

SURFACE TREATMENTS ON THE WANDO CERAMICS

	Cord marked	Fabric impressed	Simple stamped	Incised
Number of Sherds	11	15	11	1
% of Total	8.4%	11.5%	8.4%	.8%
	Punctated	Finger pinched	Linear punctated	Check stamped
Number of Sherd	4	3	1	6
% of Total	3.0%	2.3%	.8%	4.6%
	Complicated stamped	Smoothed	Scraped	Burnished
Number of Sherds	2	26	1	1
% of Total	1.5%	19.8%	.8%	.8%
	Untreated	Deteriorated decorated		
Number of Sherds	46	3		
% of Total	35.1%	2.3%		

Temper

Each of the ceramic fragments was examined with a hand lens equipped with a geologic sand grain scale. Three categories of sand temper were recorded for the Wando ceramics. Fine sand tempered ceramics were characterized by particles of less than .2 mm, while coarse sand tempered ceramics contained particles from .2-2.0 mm. The final category, fine to coarse sand, consisted of sherds which were primarily fine sand, but contained numerous larger quartz sand particles. Two additional temper types, sherd and limestone, were recorded from the Wando material. Sherd tempering consisted of large chunks of fired clay included in the paste of the sherd. Sherd temper is the distinguishing characteristic of Wilmington ceramics which composed 31.3% of the total Wando ceramics. Two limestone tempered ceramics were also recovered. Table 5 indicates the number and percentage of temper types recorded for the Wando ceramics.

TABLE 5

TEMPER OF THE WANDO CERAMICS

	Fine Sand	Coarse Sand	Fine to Coarse sand	Sherd	Limestone
Number of Sherds	35	3	50	41	2
% of Total	26.7%	2.3%	38.2%	31.3%	1.5%

Mica

Upon examination of the ceramics from this survey, presence or absence was noted for inclusions of mica in the paste. While this occurrence has been considered by some archeologists as culturally significant (Baker 1972) especially in Colono-ware ceramics, no attempt is made here to support or refute this hypothesis. The purpose of recording its occurrence is to assist in the descriptions of the ceramics recovered from the Wando survey (Table 6).

TABLE 6

NUMBER AND PERCENTAGE OF CERAMICS WITH MICA INCLUSIONS IN THE PASTE

	Present	Absent
Number of Sherds	34	97
% of Total	26.0%	74.0%

Interior smoothing or scraping

Each of the sherds was examined for evidence of smoothing or scraping of the interior vessel surface. As with exterior smoothing, the determination of the presence or absence of this variable was subjective based on the "feel" or degree of abrasion. In addition some of the sherds had been scraped with a more abrasive tool which often left deep markings on the vessel wall. The markings were similar to those which could have been produced by scraping the surface with a shell, although its occurrence was not necessarily associated with a shell site (Table 7).

TABLE 7

INTERIOR SMOOTHING OR SCRAPING ON THE WANDO CERAMICS

	Smoothing Present	Smoothing Absent	Scraping Present	Scraping Absent
Number of Sherds	32	99	3	128
% of Total	24.4%	75.6%	2.3%	97.7%

Results of the Analysis

A total of 12 surface treatments were exhibited on the ceramics from the Wando survey. From the surface treatment and temper data, five ware-group categories could be distinguished. Table 8 reveals the number and percentage and variables recorded for each ware-group. The 38 prehistoric archeological sites recorded during the survey contained 32 identifiable components. Twenty (62.5%) were from single component sites while the remaining twelve (37.5%) were from six double component sites. Table 9 presents the identifiable ware group components and their representation within the Wando project area.

TABLE 8

NUMBER AND PERCENTAGE OF VARIABLES RECORDED FOR THE
PREHISTORIC CERAMICS ACCORDING TO WARE-GROUP AND SURFACE TREATMENT

Ware Group	Number	Fine Sand	Coarse Sand	Fine to Coarse Sand	Sherd	Limestone	Mica	Interior Smoothing	Interior Scraping
Thom's Creek incised	1	1 (100%)					1 (100%)		
Thom's Creek finger pinched	3	1 (33.3%)		2 (66.7%)				2 (66.7%)	
Thom's Creek punctated	4	4 (100%)					2 (50%)	2 (50%)	
Thom's Creek linear punctate	1	1 (100%)					1 (100%)		
Deptford checked stamped	6			6 (100%)					
Cape Fear cord marked	9	4 (44.4%)		5 (55.6%)			1 (11.1%)		
Cape Fear fabric impressed	4		2 (50%)	2 (50%)					
Wilmington cord marked	2				2 (100%)				
Wilmington fabric impressed	11				11 (100%)		1 (9.1%)	1 (9.1%)	
Wilmington simple stamped	6				6 (100%)		1 (16.6%)		
Wilmington smoothed	11				11 (100%)		7 (63.6%)	9 (81.8%)	
Wilmington untreated	11				11 (100%)		3 (27.3%)		

TABLE 8

Ware Group Surface Treatment	Number of Sherds	Fine Sand	Coarse Sand	Fine to Coarse Sand	Sherd	Limestone	Mica	Interior Smoothing	Interior Scraping
Mississippian complicated stamped	2	1 (50%)		1 (50%)			1 (50%)	1 (50%)	
Mississippina burnished	1	1 (100%)					1(100%)	1(100%)	
Simple stamped	5	3 (60%)		1 (20%)		1 (20%)			
Smoothed exterior	16	8 (50%)		8 (50%)			9(56.3%)	14 (87.5%)	
Untreated	35	10 (28.5%)	1 (2.9%)	23 (6 5.7%)		1 (2.9%)	7 (20%)	2 (5.7%)	2 (5.7%)
Deteriorated	3	1 (33.3%)		2 (66.7%)					
TOTALS	131	35 (26.7%)	3 (2.3%)	50 (38.2%)	41(31.3%)	2 (1.5%)	35(26.7%)	32(24.4%)	2 (1.5%)

TABLE 9

NUMBER AND PERCENTAGE OF WARE GROUPS AND IDENTIFIABLE
PREHISTORIC COMPONENTS REPRESENTED BY THE WANDO CERAMICS

	Number of Sherds	Percentage of ware group	Percentage of total ceramics	Ware group total	Ware group percentage of total ceramics	Single component	Double component	Components represented	Ware group percentage of total identi- fiable com- ponents
Thom's Creek				9	6.9	4(80%)	1(20%)	5	15.6
Incised	1	11.1	.8						
Finger punctate	3	33.3	2.3						
Punctate	4	44.5	3.1						
Linear punctate	1	11.1	.8						
Deptford									
Check stamped	6	100	4.6	6	4.6	1(50%)	1(50%)	2	6.3
Cape Fear				13	9.9	4(57%)	3(43%)	7	21.8
Cord marked	9	69.2	6.9						
Fabric impressed	4	30.8	3.0						
Wilmington				41	31.3	10(63%)	6(37%)	16	50
Cord marked	2	4.9	1.5						
Fabric impressed	11	26.8	8.4						
Simple stamped	6	14.6	4.6						
Plain and smoothed	22	53.7	16.8						
Mississippian				3	2.3	1(50%)	1(50%)	2	6.3
Complicated stamped	2	66.7	1.5						
Burnished	1	33.3	.8						
Undetermined				59	45				
Simple stamped	5	8.5	3.8						
Smoothed	16	27.1	12.2						
Plain	35	59.3	26.7						
Deteriorated decorated	3	5.1	2.3						

Diagnostic Ware-Group Types

Thom's Creek

Thom's Creek ceramics are indicative of Early Woodland period (1000-2000 B.C.) utilization of the area. These ceramics, which composed four of the surface treatment types, have been thoroughly described by Phelps (1968) for the Central Savannah River locality. Methods of surface treatment on the Wando ceramics include incising (11.1%), linear punctations (11.1%), random punctations (44.5%), and finger pinching (33.3%).

The temper of these ceramics from Wando was predominantly fine sand (78.8%) with only two sherds (22%) containing fine to coarse sand. Four of the sherds (44.4%) contained mica in the paste and four (44.4%) exhibited interior smoothing. No rims or other diagnostic vessel forms were recovered.

Five Thom's Creek site components, representing 15.6% of the total identifiable prehistoric components, were present in the project area. Four of these were from single component sites while the remaining component was in association with a Wilmington component. Ceramics from the Thom's Creek ware group represent 6.9% of the total prehistoric ceramics recovered.

Deptford

The presence of Deptford ceramics is indicative of Middle Woodland period (200 B.C.-A.D. 500) utilization of the area. All of the Deptford sherds were check stamped. The checks were broad and often sloppily applied with some cross stamping. All of the ceramics contained fine to coarse sand temper. None of the sherds contained mica in their paste and there was no evidence of interior smoothing or scraping on any of the fragments. No rims or other diagnostic vessel forms were recovered during the survey.

Two Deptford components were present in the survey area. One was from a single component site and one was in association with a Wilmington component. The two Deptford components represent 6.3% of the total identifiable site components while the six Deptford sherds represent 4.6% of the total prehistoric ceramics.

Cape Fear

The presence of Cape Fear Ceramics is indicative of Late Woodland period (A.D. 500-1000) utilization of the project area. The primary surface treatment exhibited on the Cape Fear ceramics from the Wando survey was fabric impressed (69.2%) with only four sherds (30.8%) exhibiting cord marked treatment.

The temper of the Cape Fear ceramics was primarily fine to coarse sand (53.8%) with 4 (30.8%) containing fine sand and 2 (15.4%) containing

coarse sand. Only one sherd (7.6%) of the Cape Fear material contained mica inclusion in the paste and there was no evidence of interior smoothing or scraping on any of the sherds. No rims or other diagnostic vessel forms were recovered during the survey.

Seven Cape Fear components, representing 21.8% of the total identifiable components, were present in the survey area. Four were from single components sites while the remaining three were associated with Wilmington components. The ceramics from this ware group represent 9.9% of the total prehistoric ceramics recovered during the survey.

Wilmington

Wilmington ceramics, although exhibiting common surface treatments with Cape Fear and earlier ceramic types, are distinctive in the presence of sherd or grog tempering. The ceramics are the most common type recovered from the Wando project area and are indicative of Late Woodland period (A.D. 500-1000) utilization of the area. The most common surface treatments on these ceramics were fabric impressed and smoothed with each type representing 26.8% of the Wilmington ceramics. Six (14.6%) of the sherds were simple stamped, 2 (5.0%) were cord marked, and 11 (26.8%) were untreated. Wilmington ceramics represent 31.3% of the total prehistoric ceramics recovered during the survey.

All of the Wilmington ceramics were sherd tempered; this is the distinguishing characteristic of these ceramics. Twelve (29.3%) of the sherds contained mica inclusions in the paste and 10 (24.4%) exhibited evidence of interior smoothing. No rims or other diagnostic vessel forms were recovered.

Wilmington components were the most represented prehistoric ware group type, occurring at 16 sites. As such these components represented 50% of the total identifiable components in the project area. Ten (62.5%) of the Wilmington components were from single component sites while the remaining six occurred with Thom's Creek, Deptford, Cape Fear, and Mississippian components.

Mississippian

Complicated stamped ceramics in South Carolina are generally considered indicative of Mississippian period (A.D. 1000-1700) occupation; however, Waring (William 1968) and Caldwell and McCann (1941) found complicated stamped ceramics from earlier Deptford (1000-200 B.C.) cultural levels at several sites along the Savannah River. Two complicated stamped ceramic fragments were recovered from two sites within the project area. One of the sherds was in association with a burnished sherd which is supportive of Mississippian temporal affiliation.

One of the complicated stamped sherds contained fine to coarse sand temper while the remaining complicated stamped and burnished sherds, which were from the same site, each contained fine sand tempering. These two associated ceramics also contained a micaceous paste and exhibited interior smoothing. No rims or other diagnostic vessel forms were recovered.

Ceramics from this ware-group represented 2.3% of the total ceramics recovered from the project area. Two Mississippian components were represented by these artifacts. One was from a single component site while the other was in association with a Wilmington component. This ware group represents 6.3% of the identifiable components in the area.

Non-Diagnostic Surface Treatment Types

Simple Stamped

Five non-diagnostic sherds from the Wando area exhibited simple stamped surface treatment. Simple stamping occurs on a wide variety of ceramic types ranging from Thom's Creek of the Early Woodland (1000 B.C.-A.D. 200) through Cape Fear of the Late Woodland period (A.D. 500-1000). Due to the small size of the fragments, no determination of temporal affiliation could be made. Non-diagnostic simple stamped sherds represent 3.8% of the total ceramics recovered during the survey.

The temper of the simple stamped ceramics was primarily fine sand (60%) with one sherd (20%) of fine to coarse sand temper and one sherd (20%) of limestone temper. None of the ceramics contained mica or exhibited interior smoothing or scraping. No diagnostic rims or other vessel forms were recovered during the survey.

Smoothed

Sixteen (12.2%) ceramic fragments were recovered which exhibited evidence of smoothing on the exterior vessel surface. The determination of smoothing was subjective, often based on "feel" of the surface. In most cases, tooling marks were not evident although an occasional stick or pebble mark could be distinguished.

Eight (50%) of the smoothed ceramics were fine sand tempered while the remaining 8 (50%) were fine to coarse sand tempered. Nine (56.3%) of the sherds contained micaceous paste and 14 (87.5%) exhibited interior smoothing. No rims or other diagnostic vessel forms were recovered.

Untreated

Thirty-five (26.7%) of the ceramics from the Wando survey were undecorated and apparently had no treatment to the vessel surface. The temper of these sherds was primarily fine to coarse sand (65.7%) with 10 (28.5%) sherds containing fine sand and 1 sherd (2.9%) containing coarse sand. One additional sherd had limestone tempering. Seven (20%) contained a micaceous paste and 2 (5.7%) exhibited interior smoothing. Two sherds (5.7%) exhibited evidence of interior scraping. These ceramics represent 26.7% of the total prehistoric ceramics. No rims or other diagnostic vessel forms were recovered during the survey.

Deteriorated

Three (2.3%) of the ceramics from the Wando project area seemed to exhibit some form of stamped surface treatment but were too eroded for a determination of the treatment. Two (66.7%) of the sherds were fine to

coarse sand tempered while 1 (33.3%) was fine sand tempered. These ceramics represent 2.3% of the total prehistoric ceramic fragments. No diagnostic vessel forms were recovered.

Historic

Five occupation areas containing 21 collection units were located during the survey. From these units, a total of 1,370 artifacts were recovered. Four hundred eighty-four (35.3%) were ceramics, 756 (55.2%) were glass fragments, 70 (5.1%) were nails, 5 (.4%) were pipe stem and bowl fragments, and 55 (4.0%) were modern or undiagnostic artifacts.

Procedures of Analysis

Various manufacturing innovations in the ceramic industry during the eighteenth century resulted in extensive experimentation with ceramic glazes, pastes, and firing techniques. These experiments often ended with short-lived decorative styles which have aided in the establishment of a ceramic chronology for eighteenth century historic sites (Noel-Hume 1970: 102-137; South 1974, 1977).

The first decades of the nineteenth century witnessed more standardization of the ceramic industry, which resulted in the establishment of a more general less well-defined ceramic chronology. During this century, however, technological innovations were experienced in the glass industry which, though less identifiable archeologically, can provide supplementary information about the occupation span of a site.

The artifact classes and types represented at the Wando project area are presented below. Identification and tempered placement of the ceramics are based on Noel-Hume (1970) and South (1974), while the glass artifacts are based on Kendrick (1968), Munsey (1970) and Jones (1971) unless otherwise indicated. The number and percentage of eighteenth and nineteenth century datable ceramic and glass material from each collection unit will be presented in the following section, along with calculations of the mean ceramic date (South 1978: 223-224).

Ceramics

Leadglazed slipware (Combed yellow)

Date range: 1670-1895

Mean date: 1733. Twenty-six (5.4%) of the total historic ceramics from the Wando survey were from this category.

North Devon Gravel Tempered Ware

Date range: 1650-1775.

Mean date: 1713. Only one fragment (.2%) of this ceramic type was recovered from the project area.

Delftware: Eight delft ceramic fragments, representing 1.7% of the total historic ceramics, were recovered from the Wando survey.

Decorated delftware

Date range: 1600-1802.

Mean date: Eighteenth century-1750.

Seven (88%) of the delftware ceramics exhibited blue hand painted decoration on the exterior surface.

Everted Rim, Plain Delft Ointment Pot

Date Range: 1700-1800.

Mean date: 1750.

One additional delft ware fragment (12%) was the rim sherd of an everted rimmed, ointment pot. The fragment was light blue with no decoration on the surface.

Creamware

Date range: 1762-1820.

Mean date: 1791.

Twenty-eight (5.8%) creamware ceramic fragments were recovered during the survey. All of the ceramics were undecorated.

Pearlware: Pearlware is a transitional ceramic type found on both eighteenth and nineteenth century historic sites. A total of 10 pearlware ceramic fragments, representing 2.0% of the total historic ceramics, were recovered from the survey. Four distinctive decorative styles were represented.

Underglaze blue hand painted

Date range: 1780-1820.

Mean date: 1800.

One fragment of this type, representing .2% of the total historic ceramic and 10% of the pearlware, was recovered during the survey.

Blue and green edged

Date range: 1800-1830.

Mean date: 1805.

One green edged pearlware sherd was recovered. This fragment represents .2% of the total historic ceramic and 10% of the pearlware ceramics.

Annular ware

Date range: 1790-1820.

Mean date: 1805.

Only one fragment of annular pearlware representing .2% of the total historic ceramics and 10% of the pearlware was recovered.

Transfer-printed

Date range: 1795-1840.

Mean date: 1818.

A total of six transfer printed pearlware sherds were recovered during the survey. These fragments represent 1.2% of the total historic ceramics from the project area and 60% of the total pearlware ceramics.

Undecorated

Date range: 1780-1830.

Mean date: 1805.

The one remaining pearlware ceramic fragment was undecorated and represented 10% of the total pearlware and .2% of the total historic ceramics.

Brown Saltglazed Stoneware: Seven brown saltglazed stoneware ceramics were recovered during the survey. These ceramics, consisting of two types, represented 1.4% of the total historic ceramics.

Brown saltglazed mugs (Fulham)

Date range: 1690-1775.

Mean date: 1733.

Two fragments of this type were recovered. They represent .4% of the total historic ceramics and 28.6% of the brown saltglazed stoneware.

British brown saltglazed stoneware

Date range: 1690-1775.

Mean date: 1733.

Five fragments of brown saltglazed stoneware, representing 71.4% of the brown stoneware and 1.0% of the total historic ceramics, were recovered during the Wando survey.

Westerwald

Date range: 1700-1775.

Mean date: 1738.

Eighteen fragments of Westerwald ceramics, representing 3.7% of the total historic ceramics, were recovered during the survey. Fourteen of the sherds were stamped with blue floral designs, while the remaining four were undecorated. One chamber pot rimsherd was recovered.

White saltglazed stoneware

Date range: 1720-1805.

Mean date: 1763.

Three undiagnostic fragments of white saltglazed stoneware were recovered during the survey. These ceramics represent .6% of the total historic ceramics recovered from the Wando project area.

Ironstone-Whiteware: Two hundred seventy-one ironstone-whiteware ceramic fragments were recovered during the Wando survey. These ceramics were the most common found within the project area representing 56% of the total historic ceramics. The majority of the ironstone-whiteware material is undecorated (82.7%) but the few decorated sherds exhibited a wide variety of decorative styles.

Transfer-printed

Date range: 1820-1900+.

Mean date: 1860.

Twenty-two (8.1%) of the whiteware sherds were transfer printed. They represent 4.6% of the total historic ceramics from the project area.

Annular

Date range: 1820-1900+.

Mean date: 1860.

Thirteen (4.8%) of the whiteware ceramics were annular decorated. These ceramics represent 2.7% of the total historic ceramics recovered.

Hand painted

Date range: 1820-1900+.

Mean date: 1860.

Five of the whiteware sherds were hand painted. They represent 1.8% of the total whiteware ceramics and 1.0% of the total historic ceramic material.

Blue and green edged:

Date range 1820-1900+.

Mean date: 1860.

Four sherds, representing 1.5% of the total whiteware and .8% of the total historic ceramics, were recovered from the survey area.

Polychrome

Date range: 1820-1900+.

Mean date: 1860.

Three (1.1%) of the whiteware sherds were decorated with a polychrome floral design. These ceramics represent .6% of the total historic ceramics.

Undecorated

Date range 1820-1900+.

Mean date: 1860.

Two hundred twenty-four (82.7%) of the whiteware ceramics, representing 46.3% of the total historic ceramics, were undecorated.

Porcelain: Forty-four porcelain ceramic fragments were found during the survey with no definable date range. These ceramics represent 9.1% of the total historic ceramic artifacts. No distinguishable eighteenth century porcelain was recovered as the majority of these ceramics were undecorated or late transfer-printed.

Alkaline-glazed stoneware

Date range: 1800-present (Generally nineteenth century).

Although the exact dates of manufactures are not known, alkaline glazed ceramics are believed to have been manufactured primarily between 1800-1900, with some later production in various parts of the southeast (Green, 1970: 155-170). Only one fragment of this ceramic type, representing .2% of the total historic ceramic material was recovered during the Wando survey.

Albany slipware

Date range: No definable date range (generally nineteenth century).

Three fragments of this ceramic type were recovered from the Wando project area. They represent .6% of the total historic ceramics.

Feldspathic glazed stoneware

Date range: No definable date range (generally nineteenth century).

Two fragments of feldspathic glazed stoneware, representing .4% of the total historic ceramic, were recovered during the survey.

Colono-ware

Date range: Generally Colonial period.

Colono-ware is a term applied to unglazed, low-fired earthenware most commonly found in Colonial period British-American sites. These ceramics were originally thought to have been manufactured by historic Indian potters as trade items (Noel-Hume, 1962), but recent studies by Ferguson (1978) have suggested that a majority of these ceramics were manufactured by slaves as a continuation of ceramic traditions developed in and brought over from Africa. Nine Colono-ware fragments, representing 1.9% of the total historic ceramics, were recovered from the project area.

Undiagnostic earthenware

Date range: No definable date range.

Thirty-four (7.0%) of the historic ceramics were undiagnostic earthenware sherds. The majority of these ceramics were undecorated and exhibited a variety of bright colored glazes.

Undiagnostic stoneware

Date range: No definable date range.

Nineteen undiagnostic stoneware ceramics were recovered during the Wando survey. These ceramics represent 4.0% of the total historic ceramics.

Pipe fragments: Five pipe stem and bowl fragments were recovered from the project area. These fragments represent .4% of the total historic artifacts recovered during the survey.

Glass

A total of seven hundred fifty-six glass artifact fragments were recovered from the collection units. The artifacts were examined and placed into specific functional categories. In addition, three variables--color, decoration and diagnostic part--were recorded for each artifact.

Functional/Diagnostic Categories

Bottle/Jar fragments: This category contained all glass artifacts which exhibited curvature and which could not be placed into a more specific category. Five hundred eighty-five (77.4%) of the glass artifacts from the Wando survey were bottle and jar glass.

Tableware: This category includes drinking glasses, pitchers and bowls fragments. Twenty-four (3.2%) of the historic glass artifacts were glass tableware fragments. Most of these artifacts were made of pressed glass.

Pharmaceutical bottles: Although the sizes and shapes of pharmaceutical bottles may vary, reusable items, such as labeled or prescription bottles,

were mostly cylindrical, square, or rectangular (Munsey 1970: 174-175). Twenty-three (3.0%) of the glass artifacts from the Wando project area, were pharmaceutical with two of these being complete.

Jar lids

Date range: 1869-present.

Mean date: 1924.

Jar lids were manufactured after 1869 and were designed to protect canned food items from coming in contact with the zinc screw bands on the fruit jars. The jar lids were generally of opal or milkglass. Six (.8%) of the glass artifacts from the Wando survey were jar lid liners.

Milk jars/bottles: This category consists of those bottle fragments which can be distinguished as commercial containers for milk. They generally have a flaring rim and large rounded lips. Six (.8%) of the glass artifacts were milk jar fragments.

South Carolina Dispensary bottle: One fragment of this type was recovered from the survey area, but it was too small to be placed within a chronological time frame. This fragment represents .2% of the total historic glass artifacts.

Window glass: Window glass includes all glass that is flat and lacks any artificial coloring. Fifty-three window glass fragments, representing 7.0% of the total glass artifacts, were recovered from the Wando project area.

Marbles: One orange and white opaque marble was recovered during the survey. It represents .2% of the total glass artifacts.

Modern: This category includes modern items such as soft drink bottles, wine bottles, and other glass artifacts which can be determined to be post-1940. The primary items in this category were Pepsi, Coke and recent wine bottles. Thirty (4.5%) of the glass artifacts from the survey area were modern.

Undiagnostic: This category includes those artifacts which could not be placed into one of the functional categories described above. Most of these items consisted of burned and melted glass fragments. Twenty-three (3.0%) of the glass artifacts were undiagnostic.

Glass Variables Recorded

Green

Date range: 1651-1850(?) (Noel-Hume 1970: 61-70; Kendrick 1968: 32).

This dark, olive green glass is generally associated with eighteenth century and early to mid-nineteenth century occupation, although some black glass was produced in the late 1800s. Commonly called "black glass," large amounts of iron slag were intentionally added to help protect the contents from exposure to sunlight (Kendrick 1968: 32). This early glass is often crudely made and frequently exhibits a large number of air bubbles when held up to a light source. Seventy-six (10.1%) of the total glass artifacts were from this category.

Green

No date range: (nineteenth-twentieth century).

These artifacts exhibited various hues ranging from bright green to a light blue green. The exact time range of manufacture is not known as colors similar to these are being produced today. These glass fragments generally contained only occasional air bubbles. One hundred fifty-three (20.2%) of the glass artifacts from the survey were from this category.

Manganese

Date range: 1880-1915 (Kendrick 1968: 185).

Manganese was added by manufacturers to raw glass as a decolorizing agent and, when exposed directly to sunlight, manganese glass changes from clear to purple. The intensity of the purple tint is dependent upon the duration of exposure and the amount of manganese included. Changes may occur within one month of exposure to direct sunlight (Kendrick 1968: 184-185). One hundred eight (14.3%) of the total glass artifacts were manganese glass.

Clear

Date range: Post-1860 to present (Jones 1971: 11).

Although produced from around 1860 and before, clear glass did not become widely popular until around 1880 (Kendrick 1968: 32-33). Glass in a natural state gives a light green to blue tint; therefore, it was necessary to add a decolorizing agent to the raw glass. Manganese was used as the decolorizing agent until 1915, when World War I cut off the supply from Germany. As stated earlier, manganese glass changes to a purple tint when exposed to sunlight. Therefore, most of the glass that is clear is probably post-1915. Three hundred twenty-four (42.9%) of the glass artifacts from the Wando were clear.

Blue

No date range.

The blue glass from the Wando project area was generally a bright blue similar to many colors being produced today. Twenty-three (3.0%) of the glass artifacts from the Wando were blue.

Brown

No date range.

Thirty-six (4.8%) of the glass artifacts were of brown glass. These fragments exhibited a variety of hues from brown-orange to a dark brown and were undistinguishable from modern brown glass.

Milk

Date range: pre-1870 to present (Belknap 1949).

Milkglass is produced when zinc or tin is added as a coloring agent to raw glass (Kendrick 1968: 26). Milkglass was used originally as a liner for jar lids, but is produced today for a variety of uses including cosmetic containers. Sixteen (2.1%) of the glass artifacts were made of milkglass.

Other-Undiagnostic: This category includes other colors that could not be effectively placed into the other categories. The majority of

these undiagnostic glass fragments were burned. Twenty (2.6%) of the glass artifacts were undiagnostic.

Decoration

Thirty-eight (5.0%) of the glass artifacts exhibited some form of decoration or diagnostic manufacturing technique which distinguished them from the other fragments.

Applied lip

Date range: 1840-post 1900 (Kendrick 1968: 189-241).

This is produced by attaching a separate lip to the neck of a bottle. Most lips before this time were molded from the neck of the bottle before the glass cooled. Seven (.9%) of the bottles from the Wando survey had applied lips.

Embossed

Date range: 1800-1930 (Vienneau 1969: 2).

This refers to raised letters which are present on the exterior surface of the bottle. This category does not include wine bottles which contain the words "Federal Law Prohibits the Sale or Re-Use of this bottle" which were produced after 1930 (Munsey 1970: 247). Embossing is produced by cutting the letters into the mold so that the bottle and lettering are produced in one step. Fifteen (2.0%) of the artifacts from the Wando survey exhibited embossed lettering.

Painted decoration

No date range.

Most of these artifacts were soft drink bottles with painted lettering. Three glass fragments, representing .4% of the total glass artifacts exhibited painted decoration.

Pressed Glass

No date range.

Pressed glass was produced in order to imitate expensive cut glass. It was produced by pouring molten glass into a carved mold and pressing the interior with an additional mold. This method of manufacture was used to produce inexpensive tableware (Kendrick 1968: 101). Twelve pressed glass tableware fragments, representing 1.6% of the total glass artifacts, were recovered during the survey.

Vessel Part

Where possible, the vessel part was recorded for each fragment; jar lids, marbles and window glass were not included in this category.

Base: Sixty-six (9.5%) of the glass fragments were bases.

Body: Five hundred thirty-one of the glass fragments were body sherds. These artifacts represented 76.3% of the glass fragments.

Rim: Seventy-one of the glass fragments were rim or neck sherds. These artifacts represent 10.2% of the total glass fragments.

Handle: One pitcher handle fragment was recovered during the survey. This fragment represents .1% of the total glass artifact count.

Complete: Five (.7%) of the glass material were complete vessels.
Undiagnostic: Twenty-two (3.2%) of the glass sherds were burned or otherwise undiagnostic.

Nails

Cut nails

Date range: 1790-present.

After 1790, technological innovations in the nail producing industry allowed for nails to be cut or sheared from a sheet of iron rather than hand forged. From 1790-1825, however, the head of the nail had to be handmade as it had with earlier wrought nails. After 1825, nail cutting machines were capable of cutting the nail and stamping the head in one process (Mercer 1923: 4-10). By 1830, the process had become standardized to such an extent that cut nails produced after this date are virtually identical to those being produced today (Nelson 1968). Thirty cut nails and one cut spike were removed from the Wando survey area. These cut nails represent 44.3% of the nails recovered from the project area.

Wire nails

Date range: 1850-present.

Although manufactured after 1850, wire nails were not widely utilized until the 1860s and did not become dominant until the 1890s (Nelson 1968). While cut nails are more adhesive, the relative cheapness of producing the wire nails eventually lead to their replacement of cut nails as the most popular building nail. Thirty-nine (55.7%) of the nails recovered from the project area were wire cut.

Undiagnostic and Modern

Fifty-five (4.0%) of the total historic artifacts recovered from the Wando survey were modern or were undiagnostic. This category includes window screen, concrete blocks, electrical outlets and other modern structural debris.

Results of the Analysis

Four hundred eighty-four ceramic fragments were recovered from twenty-one collection units at the Wando project area. One hundred (20.7%) of these ceramics were from the Colonial period, three hundred eight (63.6%) were nineteenth century, and seventy-six (15.7%) were modern or undiagnostic. The highest number and percentage of Colonial period ceramics occur in Collection Units 1A and 1D of Site 38CH434 and at Site 38CH444. While the eighteenth century ceramics at Collection Unit 1D represent the second highest occurrence of these ceramics, they comprise only 20.2% of the total ceramics from that unit. Nineteenth century ceramics comprise the majority of the total ceramics in nineteen (90.5%) of the collection units. The total number of nineteenth century ceramics in the project area and their dominance over eighteenth century ceramics in 19 of 21 of the collection units indicates that nineteenth century occupation was the most extensive and intensive (See Table 10).

Four hundred seventy-six (63%) of the total glass artifacts could be assigned a relative date range. Sixty-two (13.0%) of the glass artifacts were dark green which generally ranges from 1651 to post-1860. Although this "black glass" was manufactured during the nineteenth century, it is most often found in an eighteenth century context. The dates from Wando generally support this association. The highest percentages of dark green (black glass) are found in Collection Unit 1A of Site 38CH434 (63.2%) and at Site 38CH444 (88.9%) where Colonial period ceramics are also most highly represented (Table 11).

Nineteenth and early twentieth century glass artifacts are the most numerous of the datable glass representing 79.4% of the total datable glass artifacts. A further breakdown of the nineteenth century glass indicates that clear (1860-present) and manganese (1880-1915) comprise the highest percentage at 51.7% and 22.7% respectively of the datable glass. This suggests that the most intensive occupation of the site was after the Civil War and continued into the twentieth century. Modern (post-1940s) glass consisted primarily of "Coke" and "Pepsi" soft drink bottles and modern wine bottle fragments and represented 7.6% of the total datable glass artifacts.

The nails recovered from the Wando survey are of nineteenth and twentieth century manufacture. Cut nails, which indicate post-1790s construction, represent 44.7% of the total nails, while wire nails represent 55.3% of the nails. Although manufactured around 1850, wire nails did not achieve wide spread dominance until around 1890. Most of the nails were recovered from Collection Unit 1B; however, this is the probable result of sampling bias as this structure only recently burned.

TABLE 10

MEAN CERAMIC DATE AND NUMBER AND PERCENTAGE
OF 18th AND 19th CENTURY HISTORIC CERAMICS
RECOVERED FROM EACH COLLECTION UNIT WITHIN THE SURVEY

Occupation area/ Collection Unit	Total # of Ceramics	Mean Ceramic Date	Eighteenth Century	Nineteenth Century	Undiagnosed
38CH434 1A	112	1783.3	70 (62.5%)	20 (17.9%)	22 (19.6%)
1B	3	1860	--	2 (66.7%)	1 (33.3%)
1C	40	1847.5	3 (7.5%)	35 (87.5%)	2 (5%)
1D	104	1834.8	21 (20.2%)	72 (69.2%)	11 (10.6%)
1E	36	1855.5	1 (2.8%)	31 (86.1%)	4 (11.1%)
1F	49	1860	--	40 (83.7%)	8 (16.3%)
1G	15	1860	--	8 (53.3%)	7 (46.7%)
1H	9	1860	--	8 (88.9%)	1 (11.1%)
1I	3	1817.6	1 (33.3%)	2 (66.7%)	--
1J	9	1860	--	8 (88.9%)	1 (11.1%)
1K	7	1860	--	6 (85.7%)	1 (14.3%)
2A	1	1860	--	1 (100%)	--
2B	GLASS ONLY				
3A	21	1860	--	20 (95.2%)	1 (4.8%)
3B	11	1860	--	6 (54.5%)	5 (45.5%)
3C	28	1860	--	18 (64.3%)	10 (35.7%)
3D	11	1860	--	11 (100%)	--
3E	17	1860	--	15 (88.2%)	2 (11.8%)
4A	2	1860	--	2 (100%)	--
4B	3	1819.3	1 (33.3%)	2 (66.7%)	--
38CH444 5A	3	1750	3 (100%)	--	--
TOTALS	484	1832.7	100 (20.7%)	308 (63.6%)	76 (15.7%)

TABLE 11

NUMBER AND PERCENTAGE OF DATABLE GLASS
ARTIFACTS FROM EACH COLLECTION UNIT

Occupation Area/ Collection Unit	Green (1651-1860+)	Jar Lids (1869-Present)	Manganese (1880-1915)	Clear (1860-Present)	Embossed (1800-1930)	Milkglass (1870-Present)	Modern (1940+)
38CH434							
1A	24 (63.2%)			9 (23.7%)	2 (5.3%)		3 (7.9%)
1B				6 (31.6%)	1 (5.2%)		12 (63.2%)
1C	10 (19.6%)	4 (7.8%)	19 (37.3%)	15 (29.4%)	1 (2.0%)		2 (3.9%)
1D	7 (18.4%)	1 (2.6%)	10 (26.3%)	17 (44.7%)		3 (7.9%)	
1E	4 (4.7%)		15 (17.4%)	63 (73.3%)			4 (4.7%)
1F	5 (15.1%)		3 (9.1%)	19 (57.6%)		2 (6.1%)	4 (12.1%)
1G			13 (22.8%)	34 (59.6%)	4 (7.0%)	1 (1.8%)	5 (.8%)
1H				2 (40%)	2 (40%)		1 (20%)
1I				1 (100%)			
1J	2 (5.4%)		9 (24.3%)	26 (70.3%)			
1K			1 (6.7%)	14 (93.3%)			
2A				1 (100%)			
2C			5 (100%)				
3A			4 (57.1%)	3 (42.9%)			
3B				5 (71.4%)	1 (14.3%)	1 (14.3%)	
3C			20 (66.7%) (1891)	8 (26.7%)	1 (3.3%)		1 (3.3%)
3D			3 (42.9%)	4 (57.1%)			

TABLE 11

Occupation Area/ Collection Unit	Green (1651-1860+)	Jar Lids (1869-Present)	Manganese (1880-1915)	Clear (1860-Present)	Embossed (1800-1930)	Milkglass (1870-Present)	Modern (1940+)
3E			2 (28.6%)	5 (71.4%)			
4A	2 (11.8%)		3 (17.6%)	12 (70.6%)			
4B			1 (16.7%)	1 (16.7%)			4 (66.6%)
38CH444	8 (88.9%)			1 (11.1%)			
TOTALS	62 (13.0%)	5 (1.0%)	108 (22.7%)	246 (51.7%)	12 (2.5%)	7 (1.5%)	36 (7.6%)

SITE FUNCTION AND SETTLEMENT IN THE WANDO SURVEY AREA

Introduction

Although data recovered through archeological survey has limitations, several regularities in the nature and occurrence of prehistoric sites in the Wando project area have been noted. These consistencies will be discussed below with a comparison of the data from Wando to the data recovered from the Amoco and Mark Clark Expressway surveys (Brooks and Scurry 1978; Trinkley and Tippet 1980). In addition, several statements can be made about Historic period site function and utilization as revealed in the archeological and documentary record.

Prehistoric Theoretical Background

Utilizing data from 100 Berkeley County prehistoric archeological sites, Brooks (in Green and Brooks n.d.; Brooks and Scurry 1978) developed several specific hypotheses for Woodland period site settlement in the interior Lower Coastal Plain. The primary subsistence strategy of the interriverine zone consisted of exploitation of acorn, hickory nut, and deer resources. Site settlement data from the Berkeley County sample suggests a continuity in resource exploitation but with different exploitative strategies through time. These strategies were determined to a large degree by fluctuating sea level and its subsequent effect in the amount and distribution of the well drained soils which supported the resources (Brooks and Scurry 1978; Brooks et al. 1979).

During the Archaic period (around 5000 B.C.), the oak-hickory forests declined which resulted in more limited and dispersed distributions (Whitehead 1965, 1972, and 1973). Subsequently, during the Woodland period, the prehistoric populations were separating into small seasonal nut extraction and deer hunting groups in order to effectively exploit these resources. If prehistoric utilization of the interior Lower Coastal Plain was oriented toward deer hunting and nut extraction, then there should exist a high correlation between the occurrence of prehistoric sites and well-drained soils. In addition, the sites should be small with a low artifact density and diversity. This would result from the short-term use of the sites, the small group size exploiting the resources, and the relatively narrow range of behavioral activities involved in the site formation process. Finally, the majority of site components should represent Middle to Late Woodland period utilization of the area due to the relatively high sea level stands during this time which restricted the dispersion of the resources.

The Amoco survey was designed to test these hypotheses by means of a random sample of the project area which was stratified according to soil drainage characteristics (Brooks and Scurry 1978). The data recovered from the survey supported the hypotheses. The majority of the site components (32.3%) were Middle to Late Woodland period and 78.9% were associated with moderate to well drained soils. This is highly significant since only 40% of the soils in the Amoco project area were moderate to well drained. In addition, the sites were generally small with low artifact density and diversity (Brooks and Scurry, 1978).

Based on the Amoco survey results, the site data recovered from the Wando survey was expected generally to conform to the site settlement hypotheses for the interior Coastal Plain. Since approximately 80-85% of the soils in the Wando project area were excessive to well drained, the variable of site-soil association was of no apparent value to the survey. These uniform, excessively well-drained soils would not produce high oak-hickory densities but would produce more dispersed oak-hickory and deer populations. In terms of resource availability, one area should be as good as another and as a result, the sites should be randomly dispersed throughout the project area.

Wando Site Patterning

The site patterning within the Wando survey area was similar to the patterns exhibited at Amoco and suggests a primary subsistence strategy of exploitation of oak and hickory with some utilization of deer resources. This is reflected in the occurrence of 31 (81.6%) exclusively ceramic, 1 (2.6%) exclusively lithic, and 1 (2.6%) ceramic and lithic sites within the project area. In addition, the presence of five shell middens (13.2%) indicates some periodic utilization of available estuarine resources. The shell midden sites are not included here but will be considered in a separate section.

Upland Extraction Sites

Although similar in internal site patterning, the sites recorded during the Wando survey were generally smaller, with lower artifact density and diversity. Six (31.57%) of the sites at Amoco exceeded 1000 square meters while only one (3.0%) of the Wando sites exceeded this size. Two (.015%) of the Amoco sites exhibited an artifact density index of less than 1.0, while 19 (57.6%) of the Wando sites exhibited a similar index. The artifacts diversity index of the Amoco survey sites ranged from .04 to 4.0 with nine (47.4%) falling between .01 and .10 (Brooks and Scurry 1978: 52). The artifact diversity index of the Wando sites was generally smaller with 27 (81.8%) ranging between .01 and .10. In addition, few Wando sites revealed consistent re-occupation. This is reflected in the percentage of multi-component sites present in the project area as none of the Wando sites contained over two components, while four (21.1%) of the Amoco sites contained three or more components (Brooks and Scurry 1978: 52).

The differences, though minimal, reflected in the internal site patterning between the Amoco and Wando sites, result from adaptation to the local environmental and resource variability. Ecological studies of forest productivity indicate that moderate to well drained soils (such as Amoco) generally support the highest densities of oak and hickory (Quarterman and Keever 1962) while uniform excessive to well drained soils (such as Wando) would result in sparse and dispersed distributions of these resources. The behavioral implications indicate that limited available resources would support a narrower range of exploitative activities and for shorter periods of time. This is suggested in the archeological record at Wando by smaller sites with lower artifact density and diversity and by fewer sites with long-term reoccupation.

As stated earlier, due to the excessive to well drained soils, it was expected that the sites located within the Wando project area would be randomly distributed throughout the area. The site data, however, indicated a non-random distribution with the sites clustering around small tidal inlets and marsh areas (Fig. 8). The occurrence of sites adjacent to these tidal habitats may be related to the general higher degree of slope found there. The soils in these areas may exhibit drainage qualities consistent with the well drained and of the excessive to well drained range, therefore supporting slightly higher densities of oak and hickory.

Two additional explanations of the non-random site selections are that these sites represent an exploitative strategy oriented toward aquatic resources and/or a selection for proximity to freshwater. If the sites were the result of aquatic resource procurement, then shellfish and other aquatic resource remains should be recovered. Only five (13.2%) of the sites recorded during the survey were shell middens. The presence of contemporaneous shell and non-shell sites with similar site structure and located in similar environmental situations suggests differences in resource exploitation. In addition, the presence of contemporaneous saltwater shell midden sites indicates that the water in these tidal inlets was estuarine, and that proximity to freshwater was not a significant factor determining site location within the project area. Although a slope-soil-site association is supported by the comparative Amoco data, the non-random occurrence of sites in the project area may result from selection of variables as yet unmonitored by this survey.

Shell Midden Sites

Five prehistoric shell middens were recorded during the Wando survey while shell sites were absent from the Amoco project area. Four (80%) of the Wando shell middens were single component Wilmington sites and the remaining site (20%) contained both Wilmington and Cape Fear components. The site patterning of these sites is similar to the non-shell sites as they are generally small, with low artifact density and diversity and low percentage of re-occupation. (Table 1). The sites are situated on small ridge tongues overlooking adjacent marsh and/or tidal creeks. The selection for these site locations is probably related to preference for proximity to available estuarine resources.

Analysis of the shell samples from the five middens by Michael Andrejko (Personal Communication) of the Department of Geology, University of South Carolina, indicates that all of the midden sites exhibit low species diversity and are almost exclusively subtidal and/or intertidal oysters. This low species diversity and the internal site patterning (i.e. small size, low artifact density and diversity, and low percentage of re-occupation) exhibited by the Wando shell sites suggests short term usage of these site areas. The analysis of the shell samples also indicates that shellfish resources were utilized during all seasons but with each site probably restricted to one season. This is also suggested by the consistency of the radiocarbon dates received for three shell samples from stratigraphically intact levels of Site 38CH367.

Cl4 dates: Queens College on Oyster Shell
QC 786 10-15cm 1345±100 BP
QC 787 20-25cm 1250± 90 BP
QC 788 35-40cm 1535± 95 BP

The site characteristics exhibited by the Wilmington shell middens at Wando, including their high frequency of occurrence, are typical of other Wilmington middens along the coast of South Carolina (Trinkley n.d., Michie n.d.). These characteristics are not typical of the earlier Formative period shell middens which have been recorded along the coast. The Formative middens are generally larger, with a high artifact density and diversity. In addition, these sites generally yield a higher diversity of faunal remains including several species of shellfish and other aquatic resources, deer, raccoon, bear, squirrel, turtle, and a variety of migratory fowl (Calmes 1967; Hemmings 1970, n.d.; Trinkley, n.d.; Michie, n.d.).

Site Components in the Wando Project Area

The prehistoric components present in the Wando project area were predominantly Woodland, ranging from Thom's Creek to Wilmington, with some minimal Mississippian period utilization, while the Amoco project area contained additional Early and Late Archaic components. Of interest is the absence of archeologically recognizable Mississippian components at Amoco. Their presence at Wando, though minimal, and absence at Amoco, supports the view of Mississippian populations concentrating in riverine areas containing broad floodplain terraces (such as Scott's Lake, Ferguson 1973) with little use of the interriverine zone (Brooks and Scurry 1978). Trinkley and Tippet (1980: 94-95) found Irene components at only two sites within the Mark Clark survey corridor. Although minimal as site components, the Irene ceramics represent the third highest percentage of ware-group ceramic types.

Middle to Late Woodland components are dominant in all these survey areas. Cape Fear and Deptford components in the Amoco and Mark Clark survey areas represent 32.3% and 22% of the total ceramics respectively (Brooks and Scurry 1978: 59; Trinkley and Tippet 1980: 96). Cape Fear and Deptford components represent 14.5% of the total ceramics and 28.1% of the identifiable components at the Wando survey area. Wilmington components are absent from the Amoco area and are minimally represented

(2%) in the Mark Clark corridor (Brooks and Scurry 1978: 59; Trinkley and Tippet 1980: 96). In the Wando area, however, Wilmington components are dominant, representing 31.3% of the total ceramics and 50% of the identifiable components. This decreasing occurrence of Wilmington ceramics with distance inland is consistent with the view that Wilmington is primarily a coastal and near coastal phenomenon (Anderson 1975; Brooks and Scurry 1978).

Early Woodland components, represented by Thom's Creek ceramics are poorly represented in the Wando survey area with only 6.9% of the total ceramics and 15.6% of the identifiable components. These ceramics are equally represented in the Amoco and Mark Clark survey area at 14.7 and 15% respectively. (Brooks and Scurry 1978: 59; Trinkley and Tippet 1980: 96). Earlier Archaic period components are absent from the Wando area but are minimally represented in the Amoco and Mark Clark projects areas.

Historic Period Site Settlement

Although most of the data from the Historic period sites in the project area was recovered from a disturbed context, several statements can be made about Historic period settlement in the Wando survey area. Using the mean manufacturing date of specific ceramic types and their frequency of occurrence, a mean ceramic date can be calculated for the archeological unit from which the material was recovered. This date can be used as a median occupation date for the archeological unit (South 1978: 223-224), and by comparing the dates from each unit represented at a site, inferences can be made about site settlement change through time. In addition, comparison of percentages of artifact classes and their temporal association may allow for inferences pertaining to function and intensity of site utilization. The available documentary evidence, while sometimes sketchy, generally supports the settlement data presented below.

Occupation of the project area began during the Colonial period and continued relatively consistently through the late 1950s. This lengthy occupation span is indicated by the presence of ceramic and glass artifacts which date to the eighteenth, nineteenth and twentieth centuries (Tables 10 and 11) and is supported by the available historical documents.

The archeological evidence indicates that Colonial period utilization of the area was limited primarily to Collection Unit 1A of Site 38CH434 and to Site 38CH444. This is supported by the mean ceramic dates at the collection units and by the percentage of eighteenth and nineteenth century ceramic and glass artifacts occurring at the sites. The Colonial period ceramics represent 62.5% of the total ceramics at Collection Unit 1A of Site 38CH434 and 100% of the ceramics at Site 38CH444. The percentages subsequently falls to 20.2% in Collection Unit 1D. Two additional units contain 33.3% Colonial ceramics but the sample is small with only three sherds in each unit. The glass artifact data is consistent with the ceramic data in that eighteenth century glass is most highly represented

in Collection Unit 1A (38CH434) and at Site 38CH444, but is minimally represented in the remaining collection units (See Tables 10 and 11 for the ceramic and glass artifact data).

One of the striking features of the historic artifact assemblage from the Wando survey is the virtual absence of Colono-ware ceramics. These ceramics, which probably have been manufactured as utilitarian ware by African slaves and their descendants, are generally found in high percentages on eighteenth century sites, especially agricultural plantations (Ferguson 1978; Lewis and Hardesty 1979; Carrillo 1979; Lewis 1976, 1979). The absence of these ceramics at Belleview is particularly interesting since historic documentation indicates that Edward Croft owned 38 slaves at his plantation. Several possibilities may be offered for the low occurrence of these ceramics at Wando: the general availability of European ceramics at the local markets in Charleston, inherent sampling bias, functional differences in the plantation economy, and the housing of Croft's slaves elsewhere.

Although arguments may be presented which support and refute all of these possibilities, the artifact patterning at Wando suggests that the slaves owned by Edward Croft may have been housed at another location. Archeological investigations at other agricultural plantations near Charleston have revealed the occurrence of European artifact types in areas of both landowner and suspected slave occupations (Lewis and Hardesty 1979). The virtual absence of eighteenth century artifacts outside of the area of the main house indicates that his slaves were housed elsewhere.

Nineteenth century occupation at Site 38CH434 represents the most extensive and intensive utilization of the project area. This is indicated by the dominance of nineteenth century ceramic and glass artifacts at 19 (90.5%) of the 21 collection units. Only 5 (26.7%) of the 19 units contained any eighteenth century ceramics, and the percentages in these areas was small. The datable nineteenth century glass artifacts further suggests that the most intensive utilization of the site was after 1860. This is indicated by the high percentages of clear and manganese glass in 19 (90.5%) of the 21 collection units.

The frequency of artifact occurrence indicates that nineteenth century occupation was focused primarily in Occupation Areas 1 and 3. This is suggested by the occurrence of 98.4% of the nineteenth century ceramics and 93.7% of the datable nineteenth century glass artifacts in these areas. Although large quantities of brick, tin, and other structural debris were observed in Occupation Areas 2 and 4, very little ceramic and glass artifacts were recovered. This suggests that these areas were used for barns or other storage facilities and is consistent with information supplied by Mr. John Sheridan (Personal Communication) who formerly owned the property.

No attempt was made to apply the Wando historic data to South's (1977, 1978) Carolina or Frontier Artifact Patterns. The nature of the archeological recovery (i.e. surface collections) from a disturbed context would result in a bias toward collection of more "visible" ceramic and glass materials.

CONCLUSIONS AND RECOMMENDATIONS

Archeological investigations at Belleview plantation indicated that the project area has been occupied on a relatively continuous basis for approximately 3,000 years. This is suggested by the occurrence of both prehistoric Woodland and Historic period components. Prehistoric occupation of the area was primarily concentrated during the Middle to Late Woodland period (A.D. 200-1000) with some Early Woodland (1000-200 B.C.) and Mississippian (A.D. 1000-1700) period utilization of the area. Wilmington components are dominant, comprising 50% of the identifiable components in the survey area. Most of the sites are small, with a low artifact diversity and density and with a low percentage of re-occupation. These sites probably represent short-term nut gathering and deer hunting episodes. The presence of five Wilmington period shell middens also suggests the exploitation of estuarine resources during the Late Woodland period.

Historic period occupation of the area began during the Colonial period and continued into the late-1950s. Archeological evidence indicates that the most intensive and extensive usage of the plantation was during the nineteenth century. This is suggested by the dominance of nineteenth century ceramics and glass in 19 of 21 collection units. Colonial period occupation was limited primarily to Collection Unit 1A at Site 38CH434 and to Site 38CH444, which contained only one unit. This is indicated by the high percentage of eighteenth century ceramics in these two areas and their extremely low occurrence in the remaining 19 units and is generally supported by the glass artifact data.

The spatial distribution of eighteenth century artifacts is of particular interest in view of the historical documentation for the area which suggests that Historic period utilization of the plantation involved slave supported agriculture. No archeological evidence was recovered which supports this documentation.

Historical records also indicate that utilization of the project area during the last 40 years of the eighteenth century was oriented toward shipbuilding and ship repair. This is suggested by the influx of known shipwrights into the area and by two plats which indicate two shipyards located in the Hobcaw area (Figs. 2 and 3). Additional historic period documents also indicate that nineteenth and twentieth century occupation of the plantation was primarily residence oriented with subsistence agriculture and some small-scale commercial crop production. This residence orientation continued until 1957 when the property was purchased for eventual industrial development.

A total of 41 archeological sites were recorded within the project area. Thirty-two of the sites were low density prehistoric ceramic and/or lithic scatters. Given the amount of disturbance at many of the sites and the low artifact density at all the sites, it is felt that the

amount of information to be gained through further archeological investigation at these sites is minimal and no further study is recommended. One additional site, 38CH370, was intensively tested during the survey and the data recovered indicates that further archeological study is not essential.

The remaining five prehistoric sites (38CH367, 38CH399, 38CH400, 38CH401, and 38CH402), due to the undisturbed nature of the archeological deposits, could potentially contribute valuable scientific information and are therefore significant to the prehistory of the Coastal Plain. Three of the sites (38CH399, 38CH400, and 38CH401) are apparently undisturbed single component ceramic concentrations. Additional archeological study at these sites could yield valuable information about site formation and sites variability within the Wando project area and could allow for a better understanding of the temporal affiliation of the sites. Avoidance of these sites is recommended. However, if avoidance from current construction or from future development is not possible, then a program of intensive subsurface testing should be implemented.

Sites 38CH367 and 38CH402 are apparently undisturbed single component shell middens. The nature of the chemical environment in which the artifacts were deposited are favorable for the preservation of bone, wood, floral, and other perishable materials. This is in direct contrast to the majority of non-shell land sites where the acidic soils quickly decompose perishable materials. This unique preservation of archeological materials could potentially yield valuable information pertaining to site function and variability within the project area, resource procurement, and sensitive environmental factors affecting the subsistence-settlement patterns reflected in the archeological record. These sites should be avoided if possible; however, if impact from current construction or from future development is inevitable, then a mitigation program of complete excavation for these sites is recommended.

Three historic period sites were located during the Wando survey. Site 38CH445 is a modern concrete block structure representing recent (1940s) occupation of the area. Available maps from 1919 indicate that an earlier structure may be present; however, no artifacts were recovered from the area. No additional archeological work is recommended for this site.

The remaining two sites represent Colonial period shipbuilding and nineteenth century plantation activities. Documentary evidence suggests that the material from Site 38CH444 is associated with the remains of a shipyard owned by David Linn during the 1760s and 1770s. Site 38CH434 is associated with Bellevue plantation, a nineteenth century plantation complex with evidence of an earlier colonial shipbuilding and plantation settlement also present. Given the importance of the rivers and river transportation in the economic development of South Carolina, and the absence of any systematic investigation into shipping related activities, both of these sites may be significant to the history of the state. According to the proposed construction schedule, Site 38CH444 is presently out of danger of impact from the terminal facilities construction (U.S. Army Corps of Engineers 1977). If future construction or development should become necessary for this area, then a program of intensive

sampling and possible subsequent excavation should be implemented in order to offset the adverse impact.

Site 38CH434, however, is located in the primary impact zone and will be totally destroyed by construction of the facilities. Due to the heavy disturbance resulting from previous timbering and clearing activities, it is felt that a program of testing would not be reliable or cost effective. Archeological and documentary evidence indicates that Occupation Area 1, along the northern bluff of the project area, was the most intensively utilized during the Historic period. As such, there is a high probability of intact subsurface features which would extend below the depth of the disturbance. According to Mr. John Sheridan (Personal Communication), former owner of the plantation, there was a well and privy located at the back of the plantation house within Collection Unit II. In addition, documentary and archeological evidence indicates that at least one Historic period burial (Edward Croft) is located in the area.

In order to mitigate the adverse impact to this site, an archeologist should be on hand to monitor the reduction of the bluff edge. The disturbed overburden should be carefully removed with appropriate earthmoving equipment and each grader cut should be shovel skimmed in order to expose any potential subsurface features. The features should then be mapped and excavated.

Table 12 presents a management summary for the recommendations pertaining to the cultural resources located within the project area.

TABLE 12

SUMMARY OF MANAGEMENT RECOMMENDATIONS FOR
PREHISTORIC AND HISTORIC SITES RECORDED DURING THE SURVEY

Site #	Temporal Affiliation	Recommendations
38CH365	Middle Woodland-Deptford	No further investigation
38CH366	Late Woodland (Wilmington) and probable Mississippian	No further investigation
38CH367	Late Woodland-Wilmington	Avoidance from current or future construction or total excavation
38CH368	Late Woodland-Wilmington	No further investigation
38CH369	Late Woodland-Wilmington	No further investigation
38CH370	Late Woodland-Cape Fear and Wilmington and historic	Intensively tested during the survey
38CH371	Early and Late Woodland Thom's Creek and Wilmington	No further investigation
38CH372	Late Woodland-Cape Fear	No further investigation
38CH373	Late Woodland-Wilmington	No further investigation
38CH374	Early Woodland-Thom's Creek	No further investigation
38CH375	Late Woodland-Cape Fear	No further investigation
38CH376	Late Woodland-Cape Fear and Wilmington	No further investigation
38CH377	Early Woodland-Thom's Creek	No further investigation
38CH378	Middle to Late Woodland-Deptford and Wilmington	No further investigation
38CH379	Late Woodland-Wilmington	No further investigation
38CH380	Late Woodland-Cape Fear	No further investigation
38CH381	Undetermined	No further investigation
38CH382	Late Woodland-Wilmington	No further investigation
38CH383	Undetermined	No further investigation
38CH384	Early Woodland-Thom's Creek	No further investigation

TABLE 12 (CONT)

Site #	Temporal Affiliation	Recommendations
38CH385	Undetermined	No further investigation
38CH386	Late Woodland-Cape Fear and Wilmington	No further investigation
38CH387	Late Woodland-Wilmington	No further investigation
38CH388	Undetermined	No further investigation
38CH389	Late Woodland-Wilmington	No further investigation
38CH390	Undetermined	No further investigation
38CH391	Undetermined	No further investigation
38CH392	Undetermined	No further investigation
38CH393	Late Woodland-Wilmington	No further investigation
38CH394	Undetermined	No further investigation
38CH395	Mississippian	No further investigation
38CH396	Late Woodland-Cape Fear	No further investigation
38CH397	Undetermined	No further investigation
38CH398	Undetermined	No further investigation
38CH399	Late Woodland-Wilmington	Avoidance or intensive testing
38CH400	Early Woodland-Thom's Creek	Avoidance or intensive testing
38CH401	Undetermined	Avoidance or intensive testing
38CH402	Undetermined	Avoidance or intensive testing
38CH434	Colonial and 19th century	Monitor reduction of bluff edge with removal of disturbed layer and subsequent mapping and excavation of intact subsurface features
38CH444	Colonial	Avoidance or testing with possible subsequent excavation
38CH445	20th century	No further investigation

APPENDIX

THE SEARCH FOR EDWARD CROFT

Introduction

In March of 1980, Mr. Larry Setzler of the South Carolina State Ports Authority notified the Institute of Archeology and Anthropology of the awarding of the contract for reduction of the bluff overlooking the Wando River at their proposed marine terminal facilities near Charleston, South Carolina. The archeological survey of the area, conducted by the Institute, indicated the existence of Bellevue plantation (38CH434), an eighteenth and nineteenth century agricultural and shipbuilding settlement, to be located in the proposed construction area. Due to previous heavy disturbance in the site area, it was felt that systematic subsurface testing would not be cost effective. Subsurface features, however, may be present below the disturbance layer and could potentially yield valuable scientific information about the occupation of the site. Therefore, the management recommendations for this site were to monitor the bluff reduction in the area of Occupation Area 1 by removing the layer of disturbance and mapping and excavating any features which may be exposed. In accordance with these recommendations, Mr. Setzler arranged for the use of a "pan" in order to remove the disturbed organic zone from selected areas of the site. Special thanks are extended to Mr. Setzler of the Ports Authority and to the staff of Higginson-Buchanan, Inc. Construction Company for their assistance and cooperation during this phase of the project.

Sampling Design

Available archeological and historical documentation indicated the presence of at least three subsurface features extended below the present disturbance layer. Two of the features, a well and privy, were suggested to be located in Collection Unit II near the modern structures overlooking the Wando River to the west and north. The remaining feature was the remains of a Colonial period burial located in the vicinity of Occupation Area 1 (See Figure 6). The sampling strategy was designed to test the high probability areas with emphasis on the area of the known features.

The most intensive examination of the area was in the suspected vicinity of Croft's burial. The available historical records were not very useful in documenting the exact location of the burial, and archeologically crypt fragments were scattered over a 50 m area. Therefore, the point where the vault slab was recovered during the survey was relocated and a series of grader cuts were excavated from a 40 m area on each side of that point. Several cuts were necessary in order to remove the disturbed

topsoil and expose the yellow-tan "B" horizon soils. The marked contrast between the yellow-tan soils and the dark gray organic zone provided for an excellent definition of any subsurface features. Although several modern postholes were located no burials or other subsurface features were recorded in this area.

The area around the modern structures were less intensively examined due to the lack of adequate maneuverability in this area. Several cuts around the plantation house failed to locate the well, privy, or any other subsurface features. Several additional cuts were excavated between the house and burial area in order to sample the non-documented areas for potential features. No subsurface features were recovered from these areas.

Conclusions

None of the expected features were located with the grader excavations. The well and privy were probably located in areas around the structures which could not be reached with the heavy equipment. The inability to locate the burial resulted from inaccurate assumptions: Croft's burial was situated within the range of the scattered crypt fragments; the four limestone fragments represented the totality of that scatter; and Croft was buried deep within the ground.

The lack of adequate detailed documentation made determination of the exact location of Croft's burial impossible. In addition, the presence of recognizable crypt fragments over a large area suggested that the disturbance was fairly extensive. Although the grader cuts were excavated over the range of the recovered vault fragments, these fragments may have been separated from an original vault which was not located. Also the scatter determination was based only on the occurrence of limestone crypt fragments. The vault may have been constructed primarily of brick with a limestone identification slab and ornamentation. If so, the high number of brick scattered throughout the area would increase the possible range for the location of the burial making its exact location virtually impossible to detect.

One final possibility for not recovering Edward Croft's remains is that his burial may have been above ground. If the burial chamber was a vault, as the documents indicate, then Croft's body may have been placed inside above the ground or at least in a very shallow grave. Years of decay and disturbance would have resulted in the obliteration of the remains.

While the recovery of materials from this site was oriented toward the three documented features, the absence of any archeological features from any of the sample or high probability excavations suggests that refuse disposal was either surface deposition or was situated away from the primary occupation areas. The Wando River and marsh located a maximum 25-30 m away may have served as a convenient dumping ground for the refuse from Belleview plantation.

REFERENCES

- Albright, Alan B. and J. Richard Steffy
1979 The Brown's Ferry vessel, South Carolina: a preliminary report. The International Journal of Nautical Archaeology and Underwater Exploration 8(2): 121-142.
- Anderson, David G.
1975 Inferences from distributional studies of prehistoric artifacts in the Coastal Plain of South Carolina. Southeastern Archeological Conference Bulletin 18: 180-194.
- Anderson, David G., Sammy T. Lee, and A. Robert Parler
1979 Cal Smoak: archeological investigations along the Edisto River in the Coastal Plain of South Carolina. Archeological Society of South Carolina, Occasional Papers 1.
- Bailyn, Bernard and Lotte Bailyn
1959 Massachusetts shipping 1697-1714: a statistical study. Harvard University Press, Massachusetts.
- Baker, Stephen G.
1972 Colono-Indian pottery from Cambridge, South Carolina, with comments on the Historic Catawba pottery trade. University of South Carolina, Institute of Archeology and Anthropology, The Notebook, IV(1).
- Belknap, E. McCanly
1949 Milk glass. Crown Publishers, New York.
- Brooks, Mark J. and James D. Scurry
1978 An intensive archeological survey of Amoco Realty property in Berkeley County, South Carolina with a test of two subsistence-settlement hypotheses for the prehistoric period. University of South Carolina, Institute of Archeology and Anthropology, Research Manuscript Series 147.
- Brooks, Mark J. et al.
1979 Preliminary archeological and geological evidence for Holocene sea level fluctuation in the Lower Cooper River valley, South Carolina. Florida Anthropologist 32(3): 85-103.
- Caldwell, Joseph R. and Catherine McCann
1941 Irene mound site, Chatham County, Georgia. University of Georgia Press, Georgia.

- Calmes, Alan
1967 Test excavations at three Late Archaic shell ring mounds on Hilton Head Island, Beaufort County, South Carolina. Southeastern Archeological Conference Bulletin 8: 22.
- Carrillo, Richard
1980 Green Grove Plantation: archaeological and historical research at the Kinlock Site (38CH109), Charleston County, South Carolina. Report prepared for the South Carolina Department of Highways and Public Transportation, Columbia.
- Claflin, W. H., Jr.
1931 The Stalling's Island Mound, Columbia County, Georgia. Papers of the Peabody Museum of American Archaeology and Ethnology 14(1).
- Clowse, Converse D.
1971 Economic beginnings in Colonial South Carolina, 1670-1730. Tricentennial Studies 3, University of South Carolina Press, Columbia.
- Coe, Joffre L.
1964 The formative cultures of the Carolina Piedmont. Transactions of the American Philosophical Society, n.s. 54.

1973 A story from the past. University of South Carolina, Institute of Archeology and Anthropology, The Notebook, V(5): 150-157.
- Colquhoun, Donald J.
1969 Geomorphology of the Lower Coastal Plain of South Carolina. South Carolina State Development Board, Division of Geology, MS 15.
- Edgar, Walter B. and N. Louise Bailey
1977 Biographical directory of the South Carolina House of Representatives, Volume II: The Commons House of Assembly, 1692-1775. University of South Carolina Press, Columbia.
- Ellis, E. Detreville
1967 Nathaniel Lebby, patriot and some of his decendants. Published privately by the author, Chevy Chase, Maryland.
- Ferguson, Leland G.
1971 South Appalachian Mississippian. Ph.D. dissertation, University Microfilms, Ann Arbor.

1973 Exploratory Archeology at the Scott's Lake site (38CR1) Santee Indian mound-Fort Watson: summer 1972. University of South Carolina, Institute of Archeology and Anthropology, Research Manuscript Series 36.

- 1978 Looking for the "Afro-" in Colono-Indian pottery.
Paper presented at the 19th Annual Conference on
Historic Site Archaeology, Winston-Salem, North Carolina.
- Ferguson, Leland G. (Editor)
- 1974 Archeological investigations at the Mulberry site.
University of South Carolina, Institute of Archeology
and Anthropology, The Notebook VI (3 and 4).
- Greer, Georgeanna H.
- 1970 Preliminary information on the use of the alkaline
glaze for stoneware in the South 1800-1970. Conference
on Historic Site Archaeology, Papers 5: 155-169.
- Goldenberg, Joseph A.
- 1976 Shipbuilding in Colonial America. Published for the
Mariners Museum, Newport News, Virginia by the University
Press of Virginia, Charlottesville.
- Gray, Lewis C.
- 1932 History of agriculture in the southern United States
to 1860, 2 Vols. Carnegie Institute of Washington.
Reprint edition Peter Smith. Gloucester, Massachusetts,
1958.
- Green, Stanton W. and Mark J. Brooks
- n.d. Archeological investigations at the Huger site, Berkeley
County, South Carolina. University of South Carolina,
Institute of Archeology and Anthropology, Research
Manuscript Series, in preparation.
- Gregorie, Anna K.
- 1925 Notes on Sewee Indians and Indian remains of Christ
Church Parish, Charleston County, South Carolina.
Contributions from the Charleston Museum V. Charleston
Museum, Charleston.
- 1961 Christ Church, 1706-1959: a plantation parish of the
South Carolina establishment. The Dalcho Historical
Society, Charleston.
- Griffin, James B.
- 1967 Eastern North American archeology: a summary. Science
156: 175-191.
- Hartley, Michael O. and Robert L. Stephenson
- 1975 The Grove and Flagg Plantation. University of South
Carolina, Institute of Archeology and Anthropology,
Research Manuscript Series 72.

- Hemmings, Thomas E.
 n.d. Information concerning shell ring sites on the coast of South Carolina. University of South Carolina, Institute of Archeology and Anthropology, manuscript on file.
- 1970 Preliminary report of excavations at Fig Island, South Carolina. University of South Carolina, Institute of Archeology and Anthropology, The Notebook II(9-11).
- Hutchens, John G. B.
 1941 The American maritime industries and public policy, 1789-1914: an economic history. Harvard University Press, Massachusetts.
- Jones, Claude E.
 1958 Charles Woodmason as a Poet. South Carolina Historical Magazine 59(4): 189-194.
- Jones, Olive R.
 1971 Some comments on the Newman dating key. Society for Historical Archaeology Newsletter 4(3): 7-13.
- Kendrick, Grace
 1968 The Mouth Blown Bottle. Edwards Brothers, Ann Arbor, Michigan.
- Kronberg, Nathan
 1971 Climate. In Soil Survey of Charleston County, South Carolina by E. N. Miller, Jr., pp. 72-74. United States Department of Agriculture, Soil Conservation Service and Forest Service in cooperation with the South Carolina Agricultural Experiment Station, Government Printing Office, Washington.
- Lewis, Kenneth E.
 1976 Camden, a frontier town in eighteenth century South Carolina. University of South Carolina, Institute of Archeology and Anthropology, Anthropological Studies 2.
- 1979 Hampton, initial archeological investigations at an eighteenth century rice plantation in the Santee Delta, South Carolina. University of South Carolina, Institute of Archeology and Anthropology, Research Manuscript Series 151.
- Lewis, Kenneth E. and Donald L. Hardesty
 1979 Middleton Place: initial archeological investigations at an Ashley River Rice Plantation. University of South Carolina, Institute of Archeology and Anthropology, Research Manuscript Series 148.

- Mercer, Henry C.
1923 The dating of old houses. Bucks County Historical Society Papers 5, reprint edition, Bucks County Historical Society. New Hope, Pennsylvania, 1976.
- Michie, James L.
1977 Early man in South Carolina. University of South Carolina, Institute of Archeology and Anthropology, manuscript.
- n.d. An intensive shoreline survey of Port Royal Sound and the Broad River Estuary, Beaufort County, South Carolina. University of South Carolina, Institute of Archeology and Anthropology, Research Manuscript Series, in preparation.
- Miller, E. N., Jr.
1971 Soil survey of Charleston County, South Carolina. United States Department of Agriculture in cooperation with South Carolina Agricultural Experiment Station, Government Printing Office, Washington.
- Munsey, Cecil
1970 The Illustrated Guide to Collecting Bottles. Hawthorn Books, New York.
- McIver, Petrona Royall
1960 History of Mt. Pleasant, South Carolina. Ashley Printing and Publishing Company, Charleston.
- Nelson, Lee H.
1968 Nail chronology as an aid to dating old buildings. American Association for State and Local History Technical Leaflet 48. History News 24(11).
- Noel Hume, Ivor
1962 An Indian ware of the Colonial period. Quarterly Bulletin of the Archaeological Society of Virginia 17(1): 2-14.
- 1970 A guide to artifacts of colonial America. Alfred A. Knopf, New York.
- Oliphant, Mary C. Simms
1964 The history of South Carolina. Laidlaw Brothers, River Forest, Illinois.
- Olsberg, Nicholas (Editor)
1973 Ships registers in the South Carolina Archives. South Carolina Historical Magazine 74(4): 189-299.

- Phelps, David Sutton
1968 Thom's Creek ceramics in the Central Savannah locality.
Florida Anthropologist 21(1): 17-30.
- Quarterman, Elsie and Catherine Keever
1962 Southern mixed hardwood forest: climax in the Southeastern Coastal Plain. Ecological Monographs 32: 167-185.
- Rogers, George C., Jr.
1969 Charleston in the age of the Pinckneys. University of Oklahoma Press, Norman.
- Sellers, Leila
1934 Charleston business on the eve of the American revolution. University of North Carolina Press, Chapel Hill.
- Shelford, Victor E.
1963 The ecology of North America. University of Illinois Press, Urbana.
- Shepherd, James F. and Gary M. Walton
1972 Shipping, maritime trade, and the economic development of Colonial North America. Cambridge University Press, London.
- Sheridan, Mr. and Mrs. John C., Jr.
1979 Information concerning their ownership of Belleview Plantation. Interview, February 1979.
- Smith, Henry A.M.
1919 Bermuda Town. In Some forgotten towns in lower South Carolina. South Carolina Historical and Geological Magazine 14(3): 134-146.
- South, Stanley A.
1972 The unabridged version of tribes in the Carolina Lowlands: Pedee-Sewee-Winyaw-Cape Fear-Congaree-Wateree-Santee. University of South Carolina, Institute of Archeology and Anthropology, Research Manuscript Series 20.
1973 The temple at Town Creek Indian Mound State Historic Site, North Carolina. University of South Carolina, Institute of Archeology and Anthropology, The Notebook V(5): 145-146, 157-171.
1974 Palmetto Parapets: Exploratory Archeology at Fort Moultrie, South Carolina, 38CH50. University of South Carolina, Institute of Archeology and Anthropology, Anthropological Studies 1.
1976 An archeological survey of Southeastern Coastal North Carolina. University of South Carolina, Institute of Archeology and Anthropology, The Notebook VIII: 1-55.

- 1977 Method and theory in historical archeology. Academic Press, New York.
- 1978 Pattern recognition in historical archeology. American Antiquity 43(2): 223-230.
- Steffy, J. Richard
- 1978 Construction details of the Brown's Ferry Ship. In Beneath the waters of time: proceedings of the ninth conference on underwater archeology, edited by J. Barto Arnold III. Texas Antiquities Committee Publication 6, Austin, Texas.
- Stoltman, James B.
- 1972 The Late Archaic in the Savannah River Region. Florida Anthropologist 25(2) pt. 2: 37-62.
- 1974 Groton Plantation: an archeological study of a South Carolina locality. Monographs of the Peabody Museum 1.
- Thornbury, William D.
- 1965 Regional geomorphology of the United States. John Wiley and Sons, New York.
- Trinkley, Michael
- 1978 An archaeological survey of the proposed Mark Clark East Expressway corridor Charleston and Berkeley Counties, South Carolina. S.C. Department of Highways and Public Transportation, Columbia.
- n.d. Investigation of the Woodland Period along the South Carolina coast. Ph.D. dissertation, Department of Anthropology, University of North Carolina. Chapel Hill, in preparation.
- Trinkley, Michael and Lee Tippet
- 1980 Archaeological Survey of the proposed Mark Clark Expressway, Charleston and Berkeley Counties, South Carolina. South Carolina Department of Highways and Public Transportation, Columbia.
- U.S. Army Corps of Engineers
- 1977 Final environmental statement, South Carolina State Ports Authority development, Charleston County, South Carolina. U.S. Army Engineer District, Charleston.
- Vienneau, Azor
- 1969 The bottle collector. Petheric Press, Halifax, Nova Scotia.

- Wauchope, Robert
 1966 Archaeological survey of northern Georgia. Memoirs of the Society for American Archaeology 21.
- Webber, Mabel L. (Editor)
 1933 Josiah Smith's Diary, 1780-1781. South Carolina Historical and Geneological Magazine 34(2): 67-84.
- Whitehead, Donald R.
 1965 Palynology and Pleistocene phytogeography of unglaciated eastern North America. In The Quaternary of the United States, edited by H. E. Wright, Jr. and David Frey. Princeton University Press, Princeton.
- 1972 Developmental and environmental history of the Dismal Swamp. Ecological Monographs 42.
- 1973 Late-Wisconsin vegetational changes in unglaciated eastern North America. Quaternary Research 3: 621-631.
- Widmer, Randolph J.
 1976a An archeological survey of the proposed East Cooper and Berkeley Railroad, Berkeley County, South Carolina. University of South Carolina, Institute of Archeology and Anthropology, Research Manuscript Series 100.
- 1976b Archeological investigations at the Palm Tree site, Berkeley County, South Carolina. University of South Carolina, Institute of Archeology and Anthropology, Research Manuscript Series 103.
- Wilbanks, Ralph L.
 1978 A preliminary report on the construction details of the Brown's Ferry vessel. South Carolina Antiquities 10(1): 416-421.
- Williams, Stephen (Editor)
 1968 The collected works of Antonio J. Waring, Jr. Harvard University, Papers of the Peabody Museum of Archaeology and Ethnology 58.
- Ziegler, Louis W. and Herbert S. Wolfe
 1975 Citrus Growing in Florida. University Presses of Florida, Gainesville.

Original Records

South Carolina, Records of the Secretary of State
 Wills, 1732-1776, 9 volumes. South Carolina Archives, Columbia, manuscript.

Charleston County, Records of the Register of Mesne Conveyance.
Charleston, manuscript.

Charleston County Records of the Ordinary/Probate Judge
Wills, 1783-1868, 15 Volumes. South Carolina Archives,
Columbia, manuscript.

Manuscript Census, Agriculture, South Carolina
Christ Church Parish, Charleston District, 1850-1870.
South Carolina Archives, Columbia, microfilm.

Charleston County Records of the Ordinary/Probate Judge
Inventories, Appraisements, and Sales, 1738-1867,
15 Volumes. South Carolina Archives, Columbia, Manuscript.

South Carolina, Records of the Secretary of State
Land Grants, Colonial Series, Copies, 1694-1776, 43
volumes. South Carolina Archives, Columbia, manuscript.

Papers of the Society for the Propagation of the Gospel.
On microfilm. South Carolina Archives, Columbia.

Records of the Comptroller General
Accounts Audited of Claims Arising Out of the Revolution,
1778-1804, microfilm. South Carolina Archives,
Columbia.

Maps

Bolling, Peter
1786 Plat to Capt. Paul Pritchard. Map 22 x 22 in., scale
1:3960. Post-revolutionary, extra-large plats, bdle.
150, plat 79. South Carolina Archives, Columbia.

Johnson, Lt. John
1885 Map of Charleston and its Defences, 1863. Map 24 3/4
x 19 1/2 in., scale 1:31,680. In Charleston Yearbook,
1885. The News and Courier Book Press, Charleston.

Mills, Robert
1965 Mill's Atlas of South Carolina. Robert Pearce Wilkins
and D. Keels, Columbia.

Payne, Robert
1843 Plat of Three tracts of land known as "Lebby's Point"
"Linn's Shipyard," and "Peas' tract" in Christ Church
Parish and recorded in the records of Mesne Conveyance,
Charleston, South Carolina. The portion showing Peas'
tract has been destroyed.

Thornton, John and Robert Morden

1695 This new map of the Chief Rivers, Bayes, Creeks, Harbours
and Settlements in South Carolina. Map $22\frac{1}{4}$ x $18\frac{7}{8}$ in.,
scale ca. 1:134,640. Cornhill, London.

United States Department of the Interior, Geological Survey

1919 South Carolina, Charleston quadrangle. Col. map $21\frac{3}{4}$
x 26 in., scale 1:21,120. Government Printing Office,
Washington.